

• AUGUST 1957

BUTANE-PROPANE

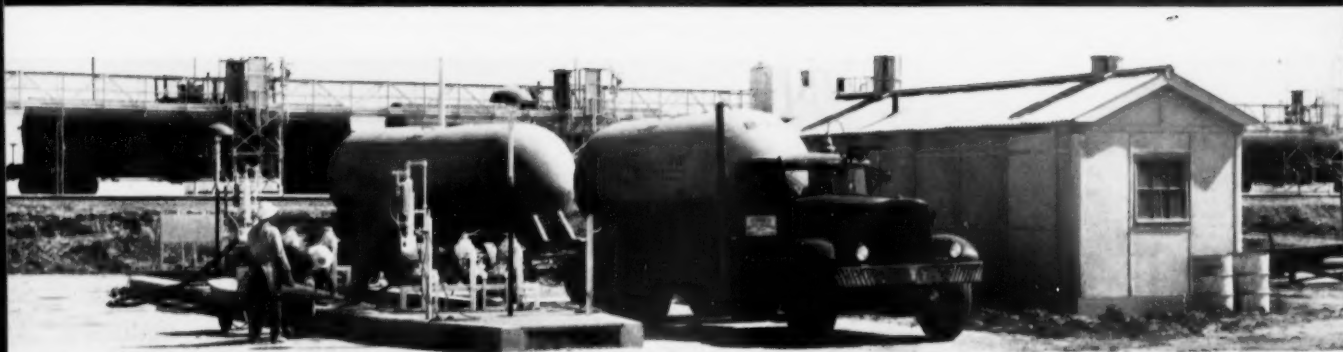
A CHILTON PUBLICATION

News

HOW NOT TO CUT
YOUR own THROAT

How do your
appliance sales
stack up?

HEADQUARTERS FOR L.P. GAS INFORMATION SINCE 1931



ACE in the hole . . .

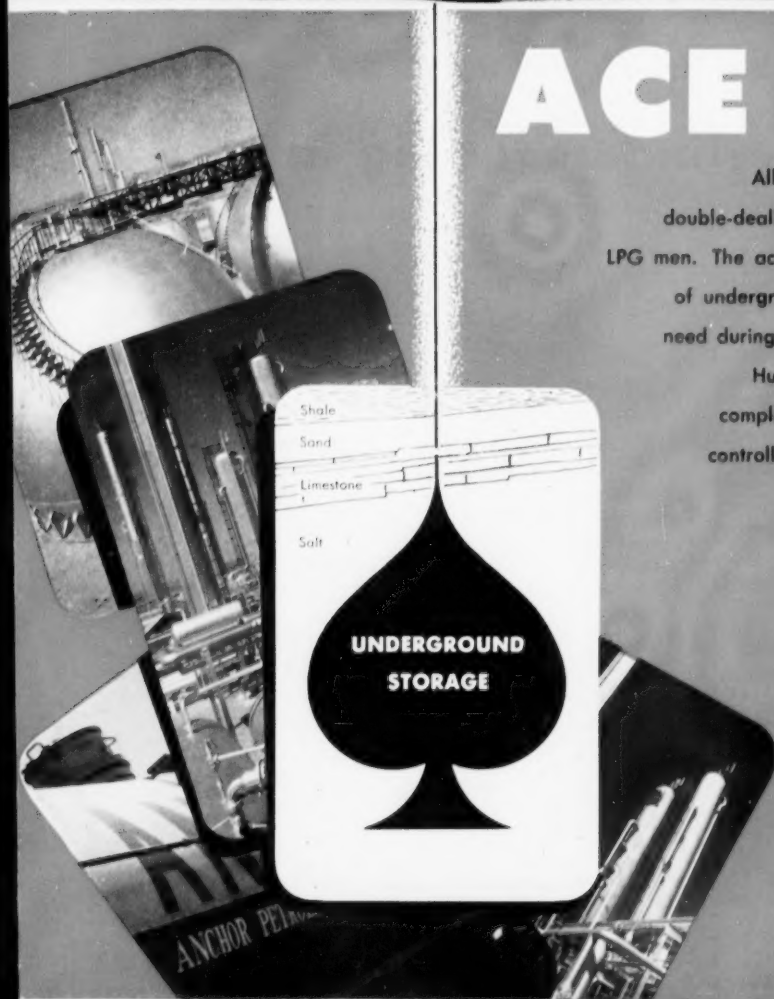
All of Anchor's cards are on the table. You get no double-dealing because our only business is in serving you, LPG men. The ace in the hole is for you . . . millions of gallons of underground storage to assure you of the supplies you need during the peak demands. Our other trump cards are:

Huge fleet of tank cars, nationwide service offices, complete customer services and the finest laboratory-controlled Butane and Propane. Deal yourself a pat hand by calling Anchor about a contract, Tulsa, CHerry 2-7261.

ANCHOR

PETROLEUM COMPANY
TULSA, OKLAHOMA

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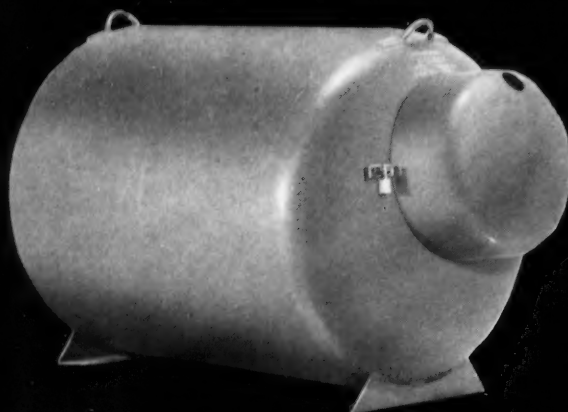


on the up and up



MODEL PC-420A: Compact, streamlined for a trim appearance wherever used.

...and on the level



MODEL 420H: Low profile is effective where large consumer loads are being developed.

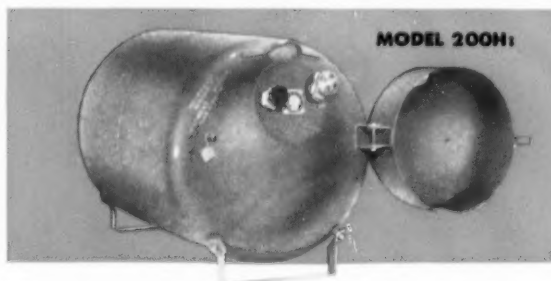
It's Hackney big cylinders for big savings

Lightweight yet durable, Hackney LP-Gas cylinders are easy to handle, easy to look at, economical to use.

It's Hackney's precision manufacturing that does it. First, two seamless shells are produced by a unique cold drawing process that assures uniform wall thickness. Then these shells get a positively controlled heat treatment both before and *after* the single, X-ray controlled weld. All stresses are removed to assure a really strong cylinder.

Rigid inspection. All along the production line Hackney cylinders are carefully inspected. Each cylinder is thoroughly cleaned, then coated for protection against the elements. Besides complying with ICC regulations, every Hackney cylinder must achieve Hackney's own quality standards.

Choose the size best for you. These Hackney big fellows



are available in vertical models from 150- to 420-pound capacities, in horizontal models from 200- to 420-pound capacities. Write for details on these modern money-saving cylinders.



Pressed Steel Tank Company

Manufacturer of Hackney Products

1487 South 66th Street, Milwaukee 14, Wisconsin

Branch offices in all principal cities



cylinders



systems



fuel tanks for
trucks and tractors



lift truck tanks

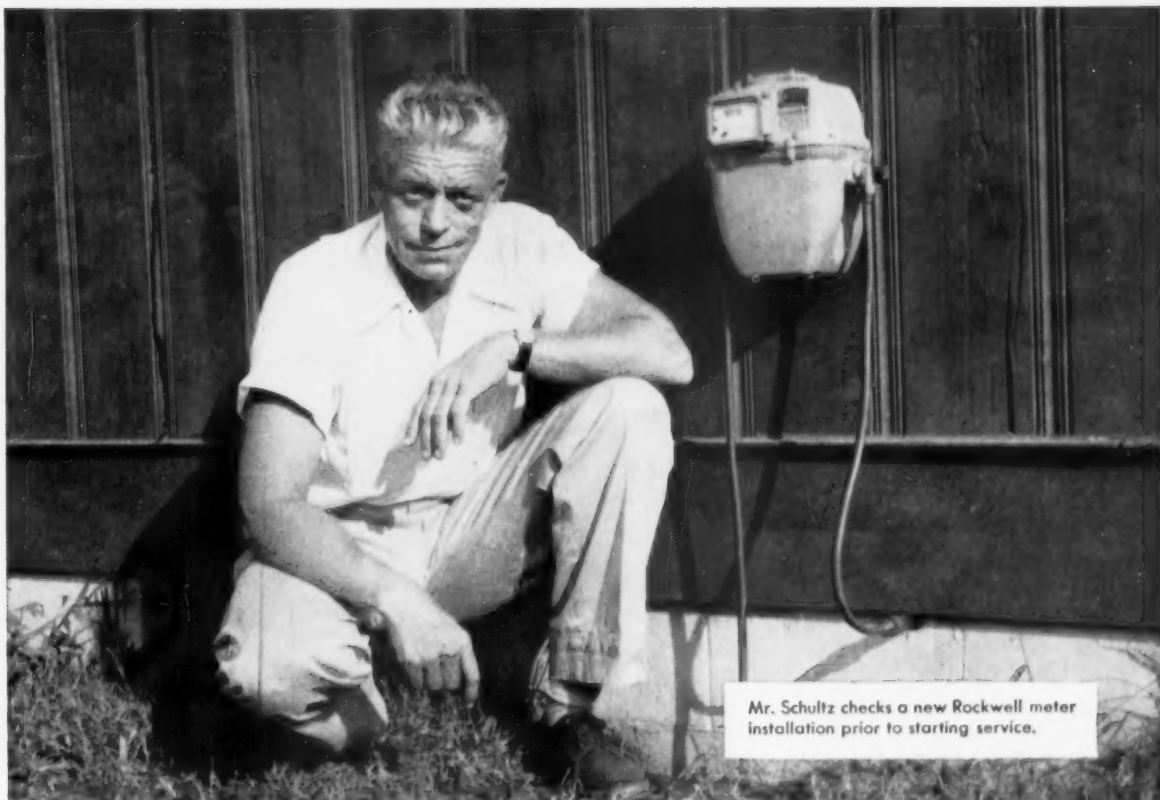


tank trucks



bulk storage tanks

LP-GAS CONTAINERS FROM ONE POUND TO 30,000 GALLONS



Mr. Schultz checks a new Rockwell meter installation prior to starting service.

"Meters are a must to build the house-heating market"

says J. V. Schultz, Manager Lawrenceville, Ill. Branch

PEER-O-PANE GAS CO.

"We feel that meters are essential for increasing today's LP-gas sales and for insuring continued growth in the future," says J. V. Schultz.

"Many companies have reached a near-saturation point with water heating and cooking service. The future lies in house-heating. However, many families who want LP-gas heating find the cost of investing in bulk tanks and buying fuel in bulk is too much of a strain on the budget. Meters, plus a low cost installation charge, solved this obstacle for us," Mr. Schultz reports.

"Our low installation price of \$50.00, and the advantage of paying for gas as you go has made the use of bulk tanks practical and popular in the areas we serve. In spite of the initial investment in tanks, regulators and meters we anticipate a fast payout. Our customers read their own meters on company-supplied cards,

and truck drivers make routine spot check readings of meters," Mr. Schultz explained. "This system of customer meter reading largely eliminates the need for additional labor," he concluded.

Peer-O-Pane started its tank-meter installation plan in May, 1955. Accurate and durable Rockwell aluminum meters are part and parcel to the success of this operation.



ROCKWELL MANUFACTURING COMPANY

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Dallas Denver Houston Los Angeles Midland, Tex.
New Orleans New York N. Kansas City Philadelphia
Pittsburgh San Francisco Seattle Shreveport Tulsa
In Canada: Rockwell Manufacturing Company of Canada,
Ltd., Toronto, Ontario

ROCKWELL LP-GAS VAPOR METERS

A stylized line drawing of a hand holding a card. The hand is shown from the side, with the thumb and index finger gripping the edges of the card. The card is tilted slightly to the right.

*Warren
Petroleum Corporation
is now at home
in the new
Warren Building
Boulder at 14th • Tulsa, Oklahoma*





A CHILTON PUBLICATION

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AUGUST 1957

BUTANE-PROPANE

News

Volume 19-Number 8

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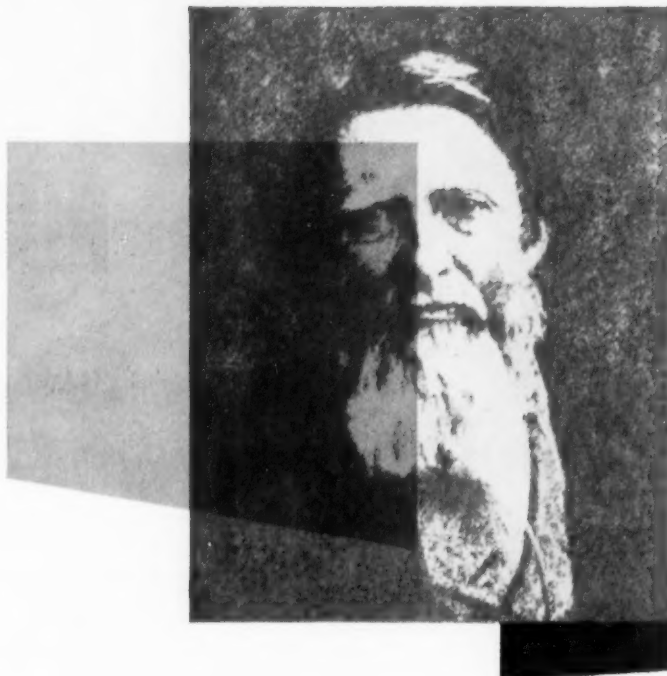
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"There is hardly anything in the world that some man cannot make a little worse and sell a little cheaper and the people who consider price only are this man's lawful prey."

JOHN RUSKIN



Here's Why...

REGO[®] PRICES

"...lawful prey" sounds as though Mr. Ruskin knew the LP-Gas Industry where inferior equipment so often is priced at whatever the unwary will pay. RegO may occasionally be a few pennies higher on certain items because RegO prices are honest for unquestioned top quality in a field where dependability is the number one need. Be wary of the phrase "...as good as RegO, but cheaper."

Actually, making mediocre equipment is a lot easier than making top quality equipment. But the few cents of savings this represents can't begin to pay you for even *one* service call, let alone a whole series of call-backs.

There's only one reason why RegO is the world's largest LP-Gas equipment manufacturer. That's because RegO reliability has been, and is, your best investment — by far! Competitive prices have been the *result* — rather than the *objective*.

In the more than 30 years since RegO built the first specialized LP-Gas controls, RegO has stayed at the top by meeting your every need completely and economically. Through continuous research, constant progress in both design and production, and 100% testing of finished products (not "spot" testing), RegO saves time and money for you — brings you satisfied customers.

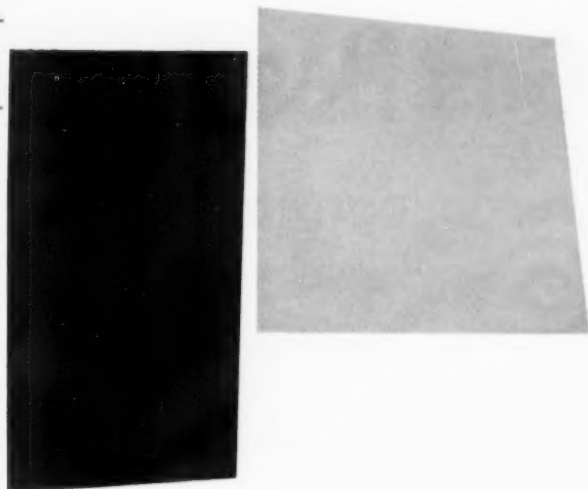
"...a little worse," Mr. Ruskin? In LP-Gas equipment, that can mean copying exterior appearances but skimping inside to save a few pennies. It can mean substitute materials. It can mean less than 100% performance testing. And it must mean following — *not leading* — in true service to the LP-Gas Industry.

RegO never is outsold on quality or on honest value, and it's value — not first cost — that counts. That has been our policy always, and we won't change it now or ever.



DO YOU KNOW
it will pay you
dividends to join!





MEAN LOWER COSTS TO YOU



You and your customers are well served by RegO controls like this 2503 low pressure regulator—a lineal descendent of the RegO regulator which was the first in the industry specifically designed for LP-Gas. The body and bonnet could be made a little cheaper than with the die cast aluminum which RegO uses. A little more could be saved with less meticulous adjustment. 100% performance testing could be reduced to "sampling" inspection for leaks, and that would save a few pennies. But where would it leave you, if the one that leaked or didn't work right was not inspected and you got it?



RegO was the first to create multiple-head units for the LP-Gas industry—and only RegO makes Multivalve® assemblies like this No. 2594. RegO bothers to build in safety features like a *double* back check in the filler valve, too. That way, even if the upper check is prevented from closing, or is damaged or removed, there is no discharge of potentially dangerous liquid gas through the lower back check.



Safety with no secondary hazard was the reason RegO developed the first spring loaded relief valves for LP-Gas. To be effective, these require springs wound to close tolerances and then adjusted to the exact start-to-discharge setting. It takes the sort of 100% production testing that RegO does in order to *know* that every valve will function *exactly* as marked.

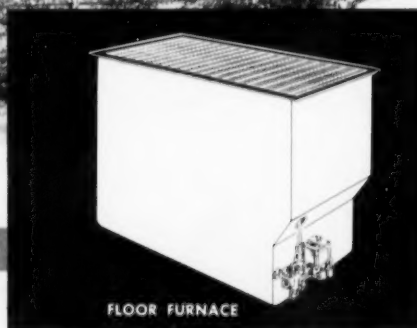
Rego and Multivalve are registered trade marks of the Bastian-Blessing Company

The **BASTIAN-BLESSING** Company 4201 West Peterson Avenue • Chicago 30, Illinois

AUGUST, 1957

TEMCO Gas Heating

... for vine-covered cottage



You'll make more heating sales with the TEMCO line, because TEMCO gives you a quality unit to sell for every heating problem. For your budget customers, the TEMCO Floor Furnace delivers all the automatic convenience of the most expensive heating systems, at a cost within the reach of almost any purse.

And for the deluxe jobs, there is a complete range of TEMCO Forced-Air Furnaces . . . with combination TEMCO Air Conditioning available.

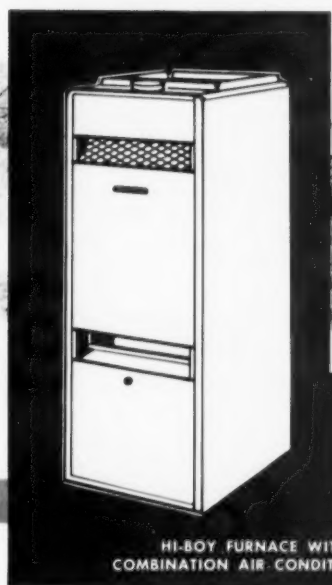
Both give you and your customers the protection of TEMCO's exclusive Ceramic-Clad*, . . . a high-temperature porcelain enamel finish so good that TEMCO Heat Exchangers are warranted for 20 years! TEMCO Ceramic-Clad heat exchangers never burn out, never rust out, and eliminate the danger of corrosion from condensation that always accompanies summer cooling.

You'll sell more, because you'll have more to sell, when you turn to TEMCO.

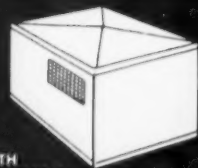
*Trademark Registered

with *Ceramic-Clad**

or 10-room showplace



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COMBINATION AIR CONDITIONING



TEMCO, inc.

NASHVILLE 9, TENNESSEE

"Gas Heating Specialists for the Nation"



"THE COMPLETE LINE OF GAS HEATING EQUIPMENT"

ROOM HEATERS • FLOOR FURNACES • WALL HEATERS • UNIT HEATERS
WARM AIR FURNACES AND AIR CONDITIONING

TEMCO, Inc., Dept. C-131
Nashville 9, Tenn.

Yes! Send me the complete TEMCO story.

Name

Firm Name

Address

City Zone State

Robertshaw-Grayson

TSC-110

manual gas control
for low cost
space heaters!

Now for the first time, ROBERTSHAW-GRAYSON announces a *new* manual control, the TSC-110... a low cost manual control for low cost, low capacity gas-fired space heaters. Switch your production to the new ROBERTSHAW-GRAYSON TSC-110 and you'll cut assembly line costs... gain added safety and dependability! The new TSC-110 installs easily, quickly, at low cost... requires a minimum of service on the job! Look at these features!

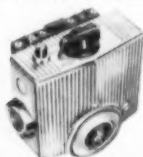
- Metal stop prevents accidental shut-off of pilot
- Standardized manifold piping cuts inventory expense
- 100% automatic shut-off of both pilot and main burner
- EXCLUSIVE—can be ordered with or without dust & gum filter



NEW! DEPENDABLE...SAFE!

A ROBERTSHAW-GRAYSON SPACE HEATER CONTROL FOR EVERY SPECIFICATION...

UNITROL
400E



For wall thermostat operations... the beautiful, automatic Unitrol 400E offers a complete, compact control... ideal for the vented, recessed wall heaters and small, competitive forced air units!



UNITROL
110S

...a low cost, automatic, thermostatically controlled, "Cold Air Return" control for gas-fired floor furnaces, wall heaters and console heaters... features the safety and dependability of an automatic, 100% shut-off safety pilot.

CALL, WRITE OR WIRE! To find out more about the new ROBERTSHAW-GRAYSON Manual TSC-110, contact Grayson Controls Division today!



Robertshaw-Fulton

CONTROLS COMPANY
GRAYSON CONTROLS DIVISION
LONG BEACH, CALIFORNIA



Letters

BPN



Formula for calculating orifice sizes

Florida

We would sincerely appreciate being advised the orifice size for a 600,000 Btu burner designed to operate at 4 in. water column. Our gas is a mixture of 70 per cent butane—30 per cent propane, with a specific gravity of .550.

Our burners normally operate at 11 in. water column, but we were asked to get this information for our customer. Also advise if there would be any advantage to using 4 to 8 in. water column rather than 11 in.

G.F.C.

Generally, appliance burners using straight L.P. gas vapors are designed and constructed to use the vapors at 11 in. w.c. pressure. Approved appliances are tested with the burners adjusted for 11 in. w.c. pressure and without further adjustment the appliances are again tested at pressures of 8 and 13 in. w.c. and are expected to perform correctly.

However, the burner which your customer has appears to be somewhat larger than those normally found in the average appliance. If your customer is converting a burner built to use some other fuel to use on L.P. gas, it is recommended that he obtain the manufacturer's recommendations in this matter.

The formula for calculating orifice sizes can be found on page 194 of the "Handbook Butane-Propane Gases." It is:

$$Q = ak\sqrt{\frac{h}{d}}$$

where:

Q = the quantity of gas in cubic feet per hour

h = the gas pressure in inches of water

d = the specific gravity of the gas referred to air

k = a constant which combines the orifice discharge coefficient with other constants pertaining to the units employed

a = the area of the orifice in square inches

You advise the fuel you furnish is 70 per cent butane and 30 per cent propane with the specific gravity of the liquid .55. Note this is the specific gravity of the liquid not the vapor. Also, there are small amounts of other hydrocarbons such as ethane, pentane, etc., in the commercial mixture so that the 70-30 proportions are not exact. However, for practical purposes it is satisfactory to use this ratio for calculating the heating value and specific gravity of the mixture.

Pure propane vapor has a heating value of 2520 Btu per cu ft and its specific gravity is 1.52, while for normal butane the heating value is 3265 Btu per cu ft and the specific gravity is 2.0. The heating value of the mixture is about 3040 Btu per cu ft and its specific gravity is 1.85.

$$\text{Then } Q \text{ becomes } 600,000 \div 3040 = 197 \text{ cu ft.}$$

$$h = 4 \text{ in. w.c.}$$

$$d = 1.85$$

$$k = 1330 \text{ (approx) based on the orifice design}$$

$$a = \text{the unknown orifice area}$$

$$\text{Then } Q = ak\sqrt{\frac{h}{d}}$$

$$\text{and substituting: } 197 = a \times 1330 \sqrt{\frac{4}{1.85}}$$

$$197 = 1960 a$$

$$a = .1006 \text{ sq in.}$$

The diameter of a circle having an area of .1006 sq in. can be found from a table of drill sizes or it can be calculated from the equation for

$$\text{the area of a circle which is } a = \frac{\pi d^2}{4}$$

where $\pi = 3.1416$ and d is the diameter of the circle. Then d for a circle with an area .1006 sq in. = .358 in. which is very close to 23/64 inch or more exactly a number "T" twist drill.—Ed.



Causes of gas odors

Georgia

I have a problem that I would like to get some information on. I note in your magazine that you give information on different subjects. For 10 years I was with sellers of butane gas and since last August have been with a company that serves natural gas.

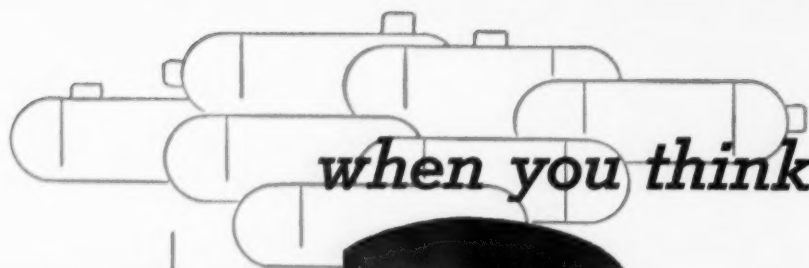
We had one customer with butane who had this same problem that we have here and I have not been able to find the trouble. They are both using unvented heaters. The one with butane has closed the place this year and moved into a smaller place with natural gas and is not having the trouble.

We have taken the heaters out, cleaned them thoroughly, changed the regulator, but still cannot locate the trouble. The heaters put out fumes and at times even a smoke that smells like old, burned oil or kerosene. The fumes are so strong that they burn the eyes and throat. They are in a large building with about 20-ft ceilings and plenty of openings.

The lady in our office has one unvented heater that gives off the same fumes if the gas is cut real low, but does not do so if the gas is on full. Her heater is also unvented but she has seven heaters all unvented and none of the others give off this odor. Thought you might have some information that might help me.

R. P.

There are several possible reasons for the odor problem which



when you think of tanks...

THE WORLD'S FINEST
LP-GAS EQUIPMENT
BEARS THIS
FAMOUS NAME



...think of



TYPE

932

"HUSKY"

TANK REGULATORS

FISHER GOVERNOR COMPANY *Marshalltown, Iowa • Woodstock, Ontario*

★
AMPLE CAPACITY FOR 500
AND 1000 GALLON TANKS

★
DEPENDABILITY

★
ECONOMY

★
FREEZE RESISTANCE

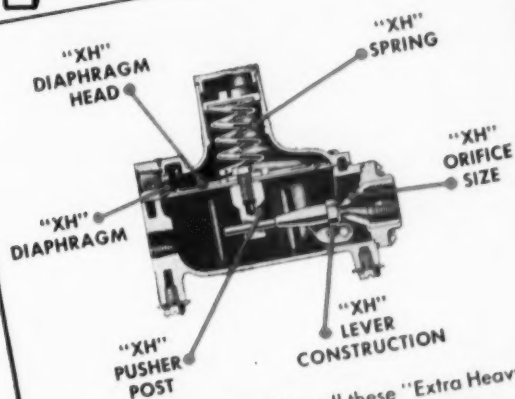
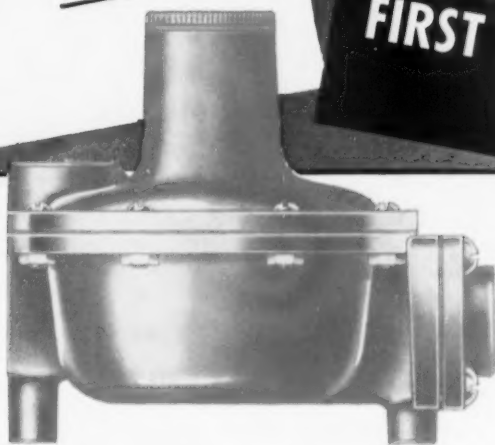
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UNIVERSAL ACCEPTANCE

FISHER®

The **LPG**
Industry's
Most Complete
Line

BIG RED

FIRST STAGE REGULATOR
Type 922H



Type 922H "Big Red" has all these "Extra Heavy" features for rugged high pressure service.

FISHER *Big Red*

Type 922H Pol x 1/2" FPT high pressure regulator for first stage pressure reduction on 2 stage bulk systems.

Tank pressures down to

5 psi (0 to 5 psi)

10 psi (5 to 10 psi)

15 psi (10 to 15 psi)

FISHER GOVERNOR COMPANY • Marshalltown, Iowa
CANADIAN PLANT: WOODSTOCK, ONTARIO
LEADS THE INDUSTRY IN RESEARCH FOR BETTER GAS PRESSURE CONTROL

FISHER

Since 1880

how to
fire-up sales automatically with the

MAGITROL

THERMOSTATICALLY CONTROLLED

TOP BURNER



MODEL 16855



- Red Wheel Oven Control
- Center Simmer Uni-Burners
- Magic-Lite Pilots
- Swing-Out Broiler
- Sun-Glo Copper Accents

Hungry for more sales? Then stop selling *widgets* . . . and start selling their *benefits*! Example? The performance of our Magitrol Burner . . . biggest boon to women since Magic Chef invented the Red Wheel oven-heat regulator in 1915. And to get the point across, tell your customer this burner provides thermostatic heat control on *top*, just like the oven's got! Cooks "just right" every time, without pot-watching!

Explain how easy it is to use. She simply sets the Magitrol Burner control (the dial's on the front panel) to the correct degree. And that's *all*! The heat sensitive unit in the center of the Magitrol Burner takes over, and

controls the temperature for her. *Automatically* raises or lowers the flame as the cooking process requires. Result? No more boil-over, burning, pan scouring, gas wasting . . . or costly extra appliances. And her cooking chart gives her the proper temperature setting for everything from cream soups to crepes suzette.

Then she'll understand why *Top-of-Range* frying, broiling, baking, stewing, simmering, etc., with this burner is so terrific. And be sure to point out that the Magitrol Griddle works on the same wonderful principle! Just two of many Magic Chef features that fire-up sales . . . when your customers "catch on"!

get GEARED TO GO for a PROFIT with



Magic Chef

MAGIC CHEF INC., ST. LOUIS, MO.

the GAS RANGE you can count on in '57!

Letters • continued

is affecting both the L. P. gas and natural gas users with unvented heaters. Some of the reasons which are listed below may not apply since, according to your letter, they have been checked.

1. Poor ventilation in the room which eventually causes a reduction in oxygen and incomplete combustion.

2. Heaters are not constructed in accordance with recommendations of the American Gas Association and, therefore, have not been tested and approved by that organization.

3. The burner flame is impinging against a cold surface and combustion is arrested. Your reference to the fumes causing the eyes to smart is an indication of arrested combustion. Such action often causes the formations of aldehydes which cause such sensations.

4. Poor circulation of air around the burner ports. This may be caused by poor burner design, lint and dirt in air circulating spaces, misplaced baffles or

5. Over orodorization could be a cause with L. P. gas but is not likely with natural gas. The reason it is more likely a cause with L. P. gas is two-fold:

a. Not as accurate control of odorization for L. P. gas.

b. Continuous vapor withdrawal from an L. P. gas tank causes a build-up of heavy ends in the storage, including odorant-carrying oils.

6. The heater mentioned, which gives the odor on low flame, indicates poor burner design or impaired air circulation around the burner ports.

7. Smoking flames indicate improper orifice size, misalignment of orifice and venturi, burned orifice, dirty orifice or burner, insufficient primary or secondary air, accumulation of grease or dust in mixer tube or air shutter.

8. Improper burner pressure. Did you check the heater manufacturers requirements?—Ed.



Placing dispensing units

Alaska

We have just received two L. P. gas filling stations, 999 wg capacity, which we would like to place at two gasoline service stations in the surrounding area, so that customers with small cylinders could get them filled without having to

bring them all the way in to the plant.

One of the gasoline service stations is in a very desirable location but has only about 25 ft of space from the station office and gasoline pumps to where the new unit would be placed. We think, from reading NBFU Pamphlet 58, that there should be 50 ft, but since the pamphlet is not very clear on this type of setup, we are not sure, so we are asking for assistance from you.

T. C.

Your L. P. gas filling station comes under Division VII of National Fire Protection Association Pamphlet No. 58 entitled, "Liquefied Petroleum Gas Service Stations." (See NFPA No. 58, June, 1956 Edition, pages 61-67).

Paragraph 7.5 "Installation of Storage Containers" reads as follows:

(a) General.

1. Each storage container used exclusively in service station operation shall comply with the following table which specifies minimum distances to a building, groups of buildings and adjoining property lines which may be built upon:

Water capacity per container	Minimum Distances	
	Aboveground and Underground	Between Aboveground Containers
Up to 2,000 gal.	25 ft	3 ft
Over 2,000 gal.	50 ft	5 ft

NOTE: The above distances may be reduced to not less than 10 ft for service station buildings of other than wood frame construction.

2. In heavily populated or congested areas, the authority having jurisdiction shall determine restrictions of individual tank capacity, total storage, and distance to line of adjoining property, which may be built on, and other reasonable protective methods.

3. The minimum separation between L. P. gas containers and flammable liquid tanks shall be 20 ft and the minimum separation between a container and the center line of the dike shall be 10 ft.

4. L. P. gas containers located near flammable liquid containers shall be protected against the flow or accumulation of flammable liquids by diking, diversion curbs, or grading.

I believe the above paragraphs cover the distances allowed for L. P. gas filling stations, including the prefabricated storage and pump assemblies.

Paragraph 7.10 (c) "Location" (1) also discusses clearances from pits, etc. of the dispenser itself:

"L. P. gas dispensing devices shall be located not less than 10 ft from aboveground storage containers greater than 2000 gal. water capacity. The dispensing devices shall not be closer than 20 ft to the nearest basement or cellar, pit, building, sidewalk, street or thoroughfare, or property line. Every effort should be made to avoid the use of pits. No drains or blow-off lines shall be directed into or in proximity to the sewer systems used for other purposes."

It would appear from the above that the unit could be placed at the station you describe and meet the code. However, the local governing authority having jurisdiction should be consulted.—Ed.



Pentane's influence

Baghdad, Iraq

The Government Oil Refineries Administration here engaged me to come to Iraq and set up an L.P. gas distribution system in this area. Upon my arrival, I found that there was no LPG, so now I am supervising the construction of a propane preparation unit. Completing this, I hope to get started on the storage and cylinder filling units.

My real problem is that we will have an off-specification gas consisting of 86 per cent butane, 10 per cent propane, and 4 per cent pentane. As the powers that be do not want to put in another unit to purify this, we will market this product. I have found that the low winter temperature here will not present a problem, but I am not sure what to expect from the 4 per cent pentane. If there are any precautions which I should take in regards to this, I would appreciate the information.

D.D.A.

We do not believe the 4 per cent of pentane in the L.P. gas mixture will cause you serious trouble. Naturally, it would be better if it could be eliminated or at least reduced.

You state the weather will not present a problem with 86 per cent butane. The low concentration of pentane provides a low partial pressure as its share of the total pressure. The pentane should vaporize proportionately with the butane, although some may tend to remain if fuel consumption from the containers with consequent refrigeration effect is too rapid.—Ed.

Nor-Tex is **FIRST** **LIGHT WEIGHT METALS** **1800 WG DELIVERY UNITS**

Nor-Tex presents the newest development in sleek, **LIGHT WEIGHT**, streamlined, twin or single barrel LPG Delivery Units and again Nor-Tex is **FIRST WITH ALUMINUM SKIRTING** and **CABINETS**. The DeLuxe, Payload Special, Custom and Standard models feature light weight metals and the latest in engineering designs which have drastically reduced over-all gross weight. It is now possible to haul more gas and less steel than ever before.

New Nor-Tex 1800 WG units, mounted

on a 2-ton truck, weigh less than 18,000 lbs. fully loaded. They reduce operating costs from the standpoints of delivery and original investment. Weighing below 13,000 lbs. empty, they save on the Federal Highway Tax recently enacted. Nor-Tex units also save on "additional weight" state license fees and required insurance.

Building modern "Route-Rated" maximum payload units at a minimum cost is another **FIRST** for North Texas Tank in the building of quality LPG delivery truck tank equipment. Each unit has

**BALANCE YOUR LOAD
 THE NOR-TEX WAY**
Finance The Balance

WRITE, WIRE
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 FOR PRICES



National Sales Agents for

NORTH TEXAS

NOR-TEX "FIRST" PARADE

- Twin LPG Truck Tanks
- LPG "Pony" Filling Stations
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AGAIN!

**NOW MAKE
POSSIBLE**

COMPLETE

**THAT WEIGH
LESS THAN**

18,000 lbs. LOADED

been thoroughly tried, tested and proved.

You can now use larger, lighter weight units and haul more payload, requiring fewer hours and miles to deliver a gallon of gas. Side or rear cabinets are optional and are arranged to fit your individual requirements. Write, wire or phone for details today.

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A PLAN TO MEET EVERY NEED

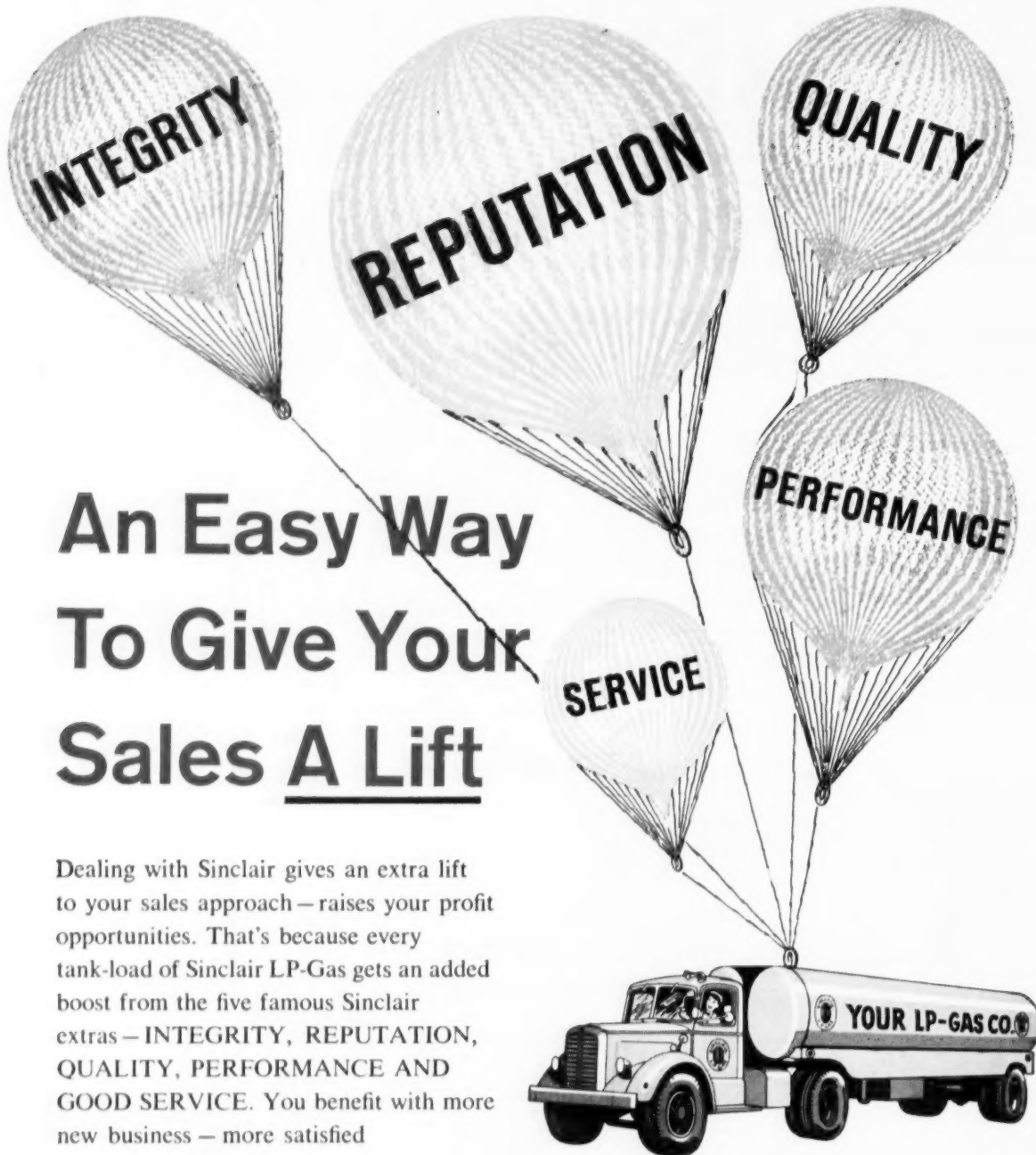


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Ask us for the facts on this top quality LP-Gas with high heating value — moisture and impurities removed. Then, make the switch to Sinclair.



Sinclair Oil and Gas Company
Liquefied Petroleum Gas Sales Department
Sinclair Oil Building, Tulsa, Oklahoma

SINCLAIR
A Great Name in Oil

By NEIL REGEIMBAL
Correspondent



BPN

Washington Report

From BUTANE-PROPANE News Washington Bureau

Senate to investigate appliance giants

Concentration of the appliance industry and the economic impact of franchise agreement will be under investigation by the Senate Small Business Committee in the months ahead.

The Committee is particularly concerned over what it terms the disappearance of small and medium-size producers of appliances. On marketing franchise agreements, the Committee reports it has been receiving a growing number of complaints from wholesalers and jobbers over the ground rules which they are required to follow with manufacturers.

The Committee has established special units to probe these problems, along with others to look into the financing needs of small firms, business failures, government competition with private business, tax relief, and monopoly trends.

Credit control plans dropped

The government is not going to regulate credit terms dealers arrange with their customers, short of an all-out emergency.

The Eisenhower Administration has dropped tentative plans to seek standby power to set minimum down payments and maximum repayment terms, which it could use as an economic tool to slow down inflation. The decision to drop the plan came after a two-year study of consumer credit by the Federal Reserve Board which showed that the public is handling its debts well.

Although consumer debt has increased rapidly over the past six years, it has not exceeded the increase in wages and earning power, the Board concluded, and credit controls would be unnecessary.

"Same class" fair trade illegal

Fair trade agreements between a manufacturer and its wholesalers are now illegal if the manufacturer also operates some of its own wholesale outlets.

A Court recently upheld the Department of Justice contentions that the fair trade laws—an exception to the antitrust laws—permit price agreements between different classes of business, such as manufacturers and wholesalers, or wholesalers and retailers, but does not permit agreements between firms on the same distribution level.

Thus, when a manufacturer sets up its own wholesaling system, as did the firm involved in the case (McKessen & Robbins, a drug producer), it violates the antitrust laws, the Court agrees. A manufacturer who operates retail outlets is not allowed to set up a fair trade program with independent retailers. The same would apply to an LPG producer operating retail branches.

Opposition delays REA interest hike

Strong opposition from farmers and rural electric cooperatives to a proposal for increasing the interest rate on government electrification loans probably will delay congressional action until next year.

The Eisenhower Administration proposal to Congress calls for interest rates on Rural Electrification Administration loans, now pegged at 2 per cent, to be raised well above 3 per cent. Rates should be high enough to cover the government's cost of making the loans, the Administration argues.

Government spokesmen claim the low-interest REA loans amount to hidden subsidies. Businessmen, such as L. P. gas dealers, who have been competing with REA-financed electric cooperatives, have been arguing this for years.

High Court hits mergers

Businessmen's urge to merge, which has been particularly strong in the L. P. gas industry, will probably be dampened considerably by two recent U. S. Supreme Court cases.

In one case, the Court ruled that a company formed by the merger of separate firms can not use all old losses to seek tax reductions. Here's the way this ruling works:

A firm buys out several other firms, some of which were losing money. Often, the purchases are made for tax reasons only. Under the new ruling, the losses of the purchased firms can only be used against future profits in these units of the chain, but not against the profits of the chain as a whole.

The result of the ruling is to lessen the tax advantages a firm can secure by purchasing businesses that have had loss years.

In the second case, the high court in a business-shaking decision ruled that DuPont had violated the antitrust laws in securing 23 per cent of General Motors stock. Implications of the ruling will be broad and affect many types of mergers and stock acquisitions.

Basis for the DuPont ruling was the premise that the stock purchases would bring a "probable lessening of competition or tendency to monopoly." Actual restraint of trade is not necessary, under the ruling.

By buying the G. M. stock, the Court says, DuPont was in a position to gain a possible preferential position as a supplier of paint and fabrics to the auto firm.

This ruling can apply to both large and small firms, and to mergers and combinations of almost all types, between firms in the same industry or in different fields. It permits the trust-busters to act regardless of how long ago a merger occurred.

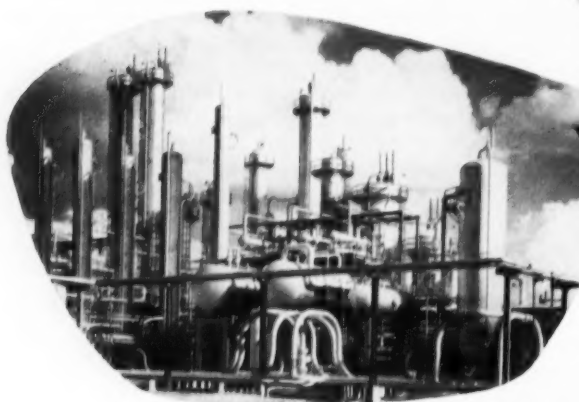
SERVICE

Tuloma representatives take a personal interest in your operations. They see to it that a Tuloma customer is a satisfied customer.



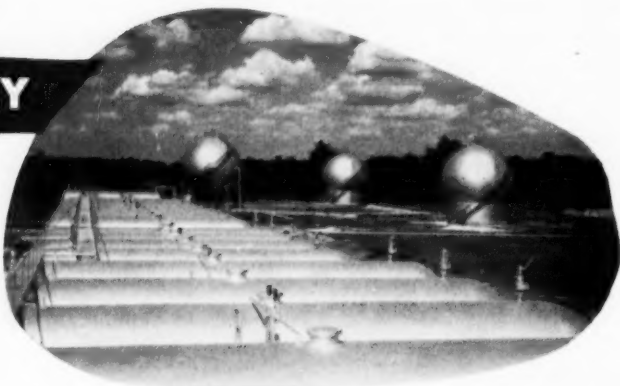
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Strategically located sources of supply are among the largest and most modern plant and refinery facilities in the nation.



SUPPLY

Huge volumes of TULOMA LP-GAS are stored in installations both above and underground for delivery to contract customers everywhere.



TRANSPORTATION

Throughout the nation TULOMA LP-GAS is delivered on schedule in clean, modern tank cars from a continually expanding fleet.



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AUGUST 1957

beyond the mains



WE MUST MAINTAIN THE FERTILITY OF OUR BUSINESS SOIL. Farmers have long known that in order to keep on harvesting crops they must plow something back into the soil to maintain its ability to produce. This is more than a principle of farming. It is a law of life, and it applies to all phases of life, including business. Successful merchants, including L. P. gas dealers, plow something back into their communities to make them better places to live. This produces increased buying power, and a more bountiful business harvest. Manufacturers plow funds back into the industries that they serve, and this produces a more fertile business soil.

Where do magazine publishers fit in this scheme of things? We are bound by that same law of life. To get, we must give. The giving takes many forms. It shows up in the extra expense of producing more and better editorial material that helps our readers to solve their problems and increase their profits. It shows up in factual surveys that help manufacturers to serve the LPG industry better and more effectively. It shows up in individual services that we render to readers and advertisers. It shows up in our constant efforts to upgrade the industry, widen its markets, and strengthen its position in competition with other forms of fuel and energy. It shows up in our efforts to create greater teamwork between the segments of the industry that must work together to reach the common goal.

In this last connection we are now going a long step beyond the customary scope of magazine service. We are holding meetings of groups of appliance manufacturers and LPG-and-appliance dealers at strategic spots for direct across-the-table discussions of the problems of selling appliances through the L. P. gas industry. These talks are mapping the roadblocks that now slow down appliance sales. They are showing manufacturers what they need to do to make more sales possible through the vital and growing LPG industry. They are pinpointing the weaknesses of the dealers' sales programs that hold down their appliance sales and limit their gas volume. They are bringing up constructive

Continued



suggestions for more effective cooperation between manufacturers and dealers in meeting the growing strength of electric competition. These meetings are initiated and conducted by our editorial staff. The cost comes out of our editorial budget. This is just another way in which we plow some of our resources back into the soil that provides our harvest.

\$583 IN TAX MONEY, SOME OF WHICH YOU WILL PAY, has been passed out by Congress during the past two years to help the rural electric cooperatives cut your throat. So far it has all been passed out at 2 per cent, in spite of the fact that the government must now pay more than 3 per cent for its current borrowings. In addition, Congress has appropriated \$9,030,950 to meet administrative expenses of the REA, which has the job of transmitting our tax money to our co-op competitors. Yes, Uncle Sam even pays the freight, which costs us more in taxes.

The Eisenhower administration has proposed to Congress that the interest rate on these REA loans should be more realistic—something over 3 per cent to cover the cost of borrowing and a part of the cost of administration. Spokesmen for the government now admit that the present low interest rates amount to a hidden subsidy. At this late date they discover a fact that businessmen have been shouting at them for years. In the meantime there seems little chance that the necessary legislation will be passed this year. There is strong opposition from the farmers' organizations and from the electric cooperatives.

In the meantime two changes in REA rules governing loans to cooperatives may indicate that this august body has its ear to the ground. Shortly after Congress was asked to raise the interest rate the REA began collecting interest (still at 2 per cent) immediately after the loans were made. In the past, interest payments were postponed during the first few years, and caught up through installments during the following years. The co-ops will also be required to begin making payments on the principal three years after the loan is issued, instead of five years as in the past. They call this a "tight money" policy!

Karl Abell

Quaker

announces a new
"shorty" wall
gas heater
only

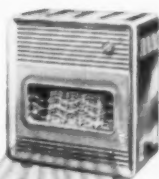
28" HIGH

FOR VOLUME SALES
AND BIGGER PROFITS
IN 1957!

More Profit-Building Quick-Sell Quaker Gas Heaters

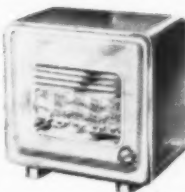
"RVM" series of vented
"Fireplace" Circulators—
today's most efficient
radiant gas heaters.
Exclusive 2-Way, 20-
Year Guarantee on
"Deep Port" Burner and
Porcelain Combustion
Chamber.

Model RVM-500—30,000 BTU
Input. Also in 35,000-40,000,
80,000 BTU Input.



"CWR" Series "Cool Cab-
inet" Deluxe Unvented
Gas Radiant Circulators—
Features exclusive "Air-
Stream" design. Assures
"cool-to-the-touch" cabi-
net. Unique engineered
construction distributes
heat evenly, efficiently.

Model CWR-300—30,000 BTU
Input. Also in 12,000-20,000-
40,000 BTU Input.



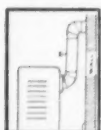
Quaker

MANUFACTURING COMPANY

Heating Division of Florence Stove Co.
1147 Merchandise Mart, Chicago 54, Illinois



Model SWC-250 Unvented Wall Gas Heater.
25,000 BTU Input. Height 28".
Also Model WC-250 Unvented Wall Gas Heater.
25,000 BTU Input. Height 48".



Ordinary heater
wastes floor space



Quaker Wall Heater
hangs on the wall

It takes only two screws to hang this completely new Quaker 28" high unvented gas heater on the wall of any home. In minutes, your customers get real heating comfort at lowest fuel costs.

Now you can offer two Quaker unvented wall gas heaters—the new 28" and the original 48"—both designed for assured maximum heating comfort.

Only Quaker Wall Gas Heaters Have These Exclusive Features!

* 20-Year Guaranteed Super Efficient "Deep Port" Burner and Porcelain Combustion Chamber * Hangs on the Wall Like a Picture * Super Safe Extra Cool Cabinet * Super "Air-Flow" Construction * New Modern Decorator Styling

Store-proven, power-packed promotions sell this new 28" Quaker wall gas heat on sight! Send coupon NOW for complete information and prices.

Quaker Manufacturing Company

1147C Merchandise Mart, Chicago 54, Ill.

Send me complete information and prices on

☐ Models SWC-250 & WC-250

☐ "RVM" Series ☐ "CWR" Series

COMPANY _____

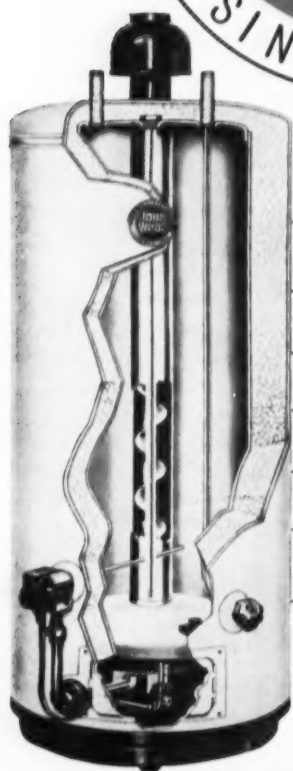
YOUR NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

**The inside story
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Glasslined
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in Upright
and
Table Top
Models



*The off-center
flue makes the
difference*

Off-Center Flue

Travels the Heat Further

Extra Heavy Tanks

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**Combination Thermostat
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LONGER LIFE

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Illustrated at left is the LMC combination pressure and vacuum relief valve. This valve, designed by Lubbock Machine engineers, automatically protects your tank against excess pressures and vacuum under all conditions . . . it is an exclusive feature of LMC Transport Tanks.

NECKDOWN DESIGN

The neckdown or offset design of the LMC transport gives you a low center of gravity which results in better roadability and easier driving.

HEMISPHERE HEAD

With its hemisphere or rounded-off head, the LMC Transport Tank can be moved in closer to the cab, which permits more front end loading when desired.

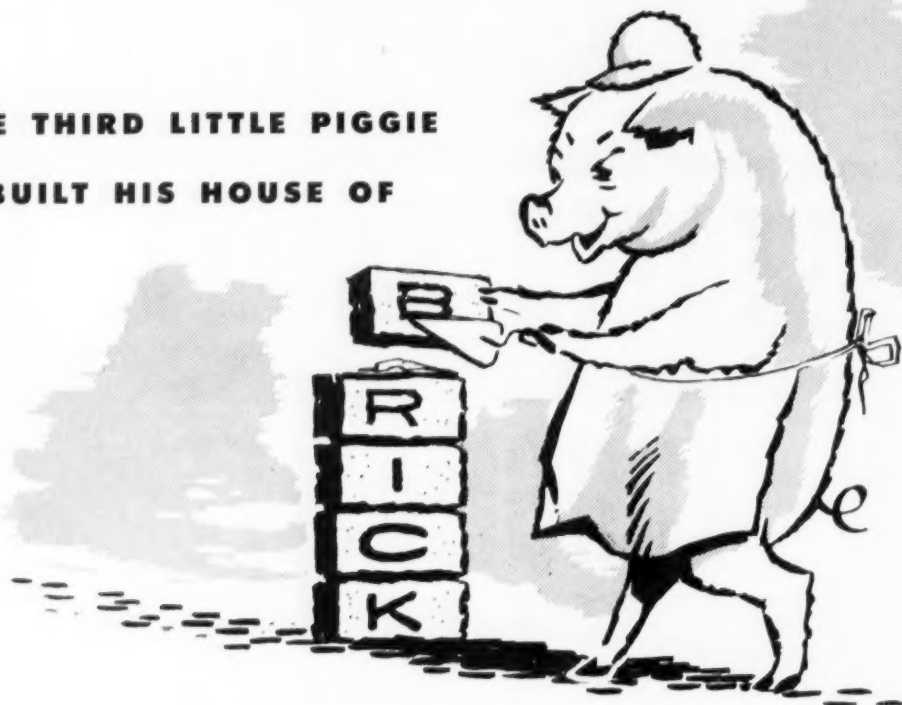
VAPOR TIGHT

Because the LMC is vapor tight, there's no fumes, which means considerably less fire hazard. Also, because there is no evaporation or shrinkage, you have a more economical unit.

LMC units are
LOW MOUNTED for

HIGH PAYLOADS

THE THIRD LITTLE PIGGIE BUILT HIS HOUSE OF



There is a good moral in this children's story. Since the efficient operation of your LP-Gas business depends so much on your pumping equipment, it pays to use the best units available.

Smith Pumps are built of the finest materials known. No expense is spared to assure top efficiency and longest service life. Furthermore, we are in a position to show you how to build the complete pumping system to get longest service and fastest delivery.* No obligation, of course.

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MC-1	10 GPM at 3600 RPM
MC-1044	20 GPM at 1800 RPM
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MC-2	50 GPM at 1800 RPM
MC-2Q	50 GPM at 1800 RPM
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STOCK TRUCK MODELS

TC-1044	20 GPM at 500 RPM
TC-1044H	35 GPM at 900 RPM
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ATC-2R	50 GPM at 1600-2000 RPM
ATC-2L	50 GPM at 1600-2000 RPM
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* Complete descriptive literature, installation diagrams, and prices available direct from factory. The above figures show rated capacities and do not indicate proper delivery rates in some types of service. For full information write:

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PRECISION PRODUCTS COMPANY

1135 MISSION STREET, SOUTH PASADENA, CALIFORNIA • RYan 12293 and RYan 12691

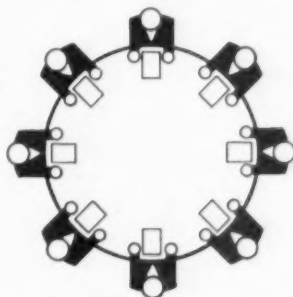
SPECIAL PUMPS BUILT TO ORDER FOR UNUSUAL REQUIREMENTS



Need for two-level action stressed at Los Angeles LPG appliance forum

A report on the second of a series of manufacturer-dealer meetings

Another step toward a better understanding of LPG dealers by gas appliance manufacturers and of manufacturers by dealers was made at the second in a series of dealer-manufacturer forums being arranged across the nation by BPN. The Los Angeles forum brought forth a barrage of fresh ideas for dealer-manufacturer cooperation in winning "The Battle of the Suburbs." How do you feel about the ideas as reported on these pages? Will you write us a letter outlining your views?



A need for strong action at both the individual dealer and national levels—with possible coordination of all national efforts—was stressed by West Coast appliance manufacturers and representative L. P. gas dealers at the first of five regional forums on appliance merchandising to be sponsored across the nation by BUTANE-PROPANE News. The West Coast forum took place June 25 at the Chapman Park Hotel in Los Angeles.

The regional meetings are an offshoot of a national forum held in Chicago in May and reported in the July, 1957, issue of BPN. At that time, key gas appliance manufacturer executives and LPG dealers from all over the nation asked BPN to continue the appliance merchandising forum idea.

Editor Abell, moderator of the forum, led off in Los Angeles by

reminding those in attendance just how important the fight of gas vs. electricity, which he termed "The Battle of the Suburbs," really is. "As the city goes, so goes the country," the BPN editor warned, adding that "in the Chicago area, as elsewhere in the United States, 80 per cent of the suburbs are going electric."

John Abram, one of two men at the forum representing a gas util-

ity, the Southern California Gas Co., stated that the electric companies have been successful in getting the City of Los Angeles to recommend 220 volt wiring in all new homes and that some Southern California cities have made 220 wiring mandatory. This opens the door wide for installation of all-electric homes.

"In the Pacific Northwest, some electric companies won't give a new home an electrical connection of any kind if they have an L. P. gas installation," Gene Clarke, Suburban Gas Service, told the forum. He added that the electric heat pump is being pushed hard in that part of the country.

That the heat pump problem is not a future threat but a definite threat right now was seconded by Petrolane Gas Service Inc.'s W. A. Coglizer. "But even though the heat pump situation is here, none of us are doing anything about it," he said, adding that he knows a man who makes his living hauling L. P. gas but who heats his new home with an electric heat pump and is sold on it. Mr. Coglizer informed the group, however, that the gas industry is working on a heat pump of its own.

BPN editor Carl Abell's story amuses Harry Horn, Arthur Horn, Daryl Giles, Forrest Line, and Larry Jackson. "Socializing" came prior to Los Angeles LPG dealer - appliance manufacturer forum.





The second BPN-sponsored appliance sales conference comes to order at Los Angeles' Chapman Park Hotel. Seated clockwise around the outer edge of the table are Lynn Denny, BPN; Larry Jackson, BPN; Harry I. Horn, Harry I. Horn Co., Anaheim, Calif.; M. L. Jensen, Imperial Gas Co., Los Angeles; Lester Kling, Rockgas Service Co., El Cajon, Calif.; Charles C. Martin, Mission Appliance Corp.; Joseph Staller, Southern California Gas Co., Los Angeles; Gilbert Bragg, VanGas Inc., Fresno, Calif.; W. A. Coglier, Petrolane Gas Service Inc., Long Beach, Calif.; Carl Abell, BPN, forum chairman; Gilbert Bowman, BPN; J. R. Van Curen, Holly-General Co.; Tom Legg, Glenbrook Gas Co., Grass Valley, Calif.; Daryl H. Giles, Mission Appliance Corp.; Gene Clarke, Suburban Gas Ser-

vice Inc., Upland, Calif.; Arthur J. Horn, Day & Night Div., Carrier Corp.; Glenn Filbert, Petrolane Gas Service Inc.; Forrest L. Line, Mission Appliance Corp.; and Martin A. Brower, BPN. Seated clockwise around the inner edge of the table are Fred Ebdon, GAS Magazine; Jerry Smith, BPN; Roland Usher, American Liquid Gas Co., Los Angeles; Charles E. Germain, Duplex Corp.; John Abram, Southern California Gas Co., Los Angeles; Harry F. Vacek, H. C. Little Burner Co. Inc.; Frank McKenzie, BPN; Norman Lee, Norco Sales Corp.; Spencer Cooper, American Liquid Gas Corp., Los Angeles; and John S. Reynard, Propane Gas Service Co., San Fernando, Calif. Participants agreed that a stronger sales drive is needed by L.P. gas dealers.

"I am currently buying a new home myself and I find that I must take an all-electric kitchen or pay considerably more," the Petrolane representative then complained. But even though the electric appliances are undesirable, one must admit that they make a beautiful package, he added. "The gas industry must get a package kitchen to sell."

BPN editor Abell agreed with Mr. Coglier on the need for a

package kitchen, telling the group that the same point was stressed by manufacturers and dealers in the Chicago meeting. "Three electrical appliance manufacturers—General Electric, Westinghouse and Hotpoint—offer all-electric package kitchens, but there are no such packages in the gas industry," editor Abell complained.

Appliances in matching colors can be had from some manufacturers, Charles C. Martin, Mission

Appliance Corp., told the forum.

A phase of electrical competition that is hard to combat is the sale of electric water heaters to building contractors at extremely low prices so that the contractors will build all-electric homes, Daryl H. Giles, Mission Appliance Corp., informed the forum. This was added to by Tom Legg, Glenbrook Gas Co., who stated that he made a survey in his Grass Valley, Calif., marketing area of general appliance dealers after receiving his invitation to attend the forum. He said that appliance dealers had on display a total of 27 ranges. Of those 20 were electric. The reason, he explained, is that appliance dealers are getting a higher unit sale and profit on electric ranges and so are pushing them. The LPG dealers, he concluded, need more general appliance dealers pushing L. P. gas ranges.

"That's right," Suburban's Clarke seconded Mr. Legg. "We don't care who sells the appliance just so that appliance operates on gas. We must sell gas. People moving into an L. P. gas area



W. A. Coglier and Tom Legg listen closely to Norman Lee's words of wisdom at appliance conference.

usually don't realize they can bring their fine natural gas range right along with them into the non-pipeline area," he said.

"Just as the electric people are selling electricity as being modern, we must get people to associate the word 'gas' with clean, cool and modern," J. R. Van Curren, Holly-General Co., asserted.

"It seems to me," Mr. Van Curren continued, "that the L. P. gas dealers are waiting for someone else to help them. The national promotion programs are fine, but the dealers are going to have to do a lot more for themselves.

"The LPG industry is doing a poor job of selling and I am afraid we manufacturers are doing a poor job of helping them sell," Mr. Van Curren said. For example, the LPG dealers have regular contact with their customers through their gas delivery truck drivers. The electric people have no such contact. Dealers, he said, must get salesmen on those trucks. A driver who merely waves to the customer as he fills her tank is passing up an excellent selling opportunity.

"LPG dealers," he continued, "are using the heat pump as an excuse for their failures in salesmanship. Sales can be made with personal contact and sales effort," he added. "If dealers only made consistent efforts to fill the needs of even their present customers for all appliances, that would aid immeasurably in increasing sales," the manufacturer told the group. "Don't rely only on the national groups, do something yourself," he again emphasized.

"A man who is a good truck driver and serviceman is not often a particularly good salesman," John S. Reynard, Propane Gas Service Co., answered. "Sales must be handled by a different source," he stated, adding that his firm has a full time salesman who does only sales and is skilled at that particular task. "A man is going to be good as a driver and serviceman or as a salesman," he concluded.

A driver has enough to do just delivering gas, Roland Usher, American Liquid Gas Co., agreed. He has a lot of gas to deliver and can't easily take time for selling.

Utility gas company meter readers don't do any selling, Mr. Usher asserted.

Utility service and distribution people can at least be sales oriented though, and are, Joe Staller, Southern California Gas Co., answered. We must take advantage of every sales opportunity, he said. Southern California Gas Co., he continued, displays appliances at fairs and shows, at collection offices, anywhere we can. We have a cash incentive system for employees who turn in leads for appliance sales. "We don't ask our servicemen to be salesmen but we do ask them to be alert in reporting customers who need to replace or add appliances, so our

water. She can hardly wait to throw out the gas model and buy electric. Not one man here buys clothes at the lowest possible price, he challenged. Then why do LPG dealers feel they must sell only on the basis of price?, he asked.

But selling is not easy, Suburban Propane's Clarke contributed. There is a definite dearth of good salesmen.

"We can't pay salesmen if manufacturers give away appliance discounts to the discount houses," American Liquid Gas' Usher contended. "And L. P. gas dealers are not getting proper discounts," he challenged.

This entire problem needs



Harry F. Vacek explains his firm's position to BPN associate editor Martin Brower, Charles Germain, Fred Ebdon and Frank McKenzie.

company or a gas appliance dealer can be the first on the spot," Mr. Staller emphasized.

And we sell quality, Mr. Staller went on. We sell quality not only in ranges but in water heaters as well. Our company has a system of commission with greater incentives at the top end of the appliance lines and none at the bottom.

Holly-General's Van Curren was quick to second the idea of selling quality merchandise as a step toward beating electrical competition. A dealer who sells by price lets a customer buy a range without modern features. Then an electric range salesman comes around and asks her where she got that antique. He shows her the features on a high-priced electric range and makes her mouth

study, Arthur J. Horn, Day & Night Division, Carrier Corp., announced. After study, we can make plans for an aggressive campaign. We need a coordinated, directed program among all groups—LPGA, GAMA, AGA, and the National LP Gas Council, he said.

Charles E. Germain, Duplex Corp., agreed with this. He explained that he was formerly director of sales training for the Los Angeles Bureau of Power & Light and several years ago sat in on a meeting similar to the BPN forum at which strategy for the present electric industry campaign was plotted. He stressed that dealers should get out and sell gas appliances because gas gives customers a better deal for their money. He told the group that his firm makes commercial



Above, appliance sales talk went on even during the luncheon.



Left, Editor Abell, W. A. Cogfizer and J. R. Van Curen talk LPG.

Spencer Cooper entertains Norman Lee prior to sitting down for lunch.



Left, LPG dealers, appliance manufacturers and BPN staff members talk over "The Battle of the Suburbs" during lunch.

Below, Gilbert Bowman shows results of the BPN appliance survey to Lester Kling, Merv Jensen, Gene Clarke, John Reynard, and Spencer Cooper.



clothes dryers in gas models only, because gas is the only fuel that the commercial user of a clothes dryer can afford to use.

Mission Appliance's Martin then asked whether those present at the forum could take some steps to get all segments of the industry together as was brought out by Mr. Horn and seconded by Mr. Germain.

Mr. Horn, who is a member of the Pacific Coast Gas Association, stated that he would take it on himself to bring up the subject at the next meeting of the PCGA to see how that group felt.

Editor Abell explained that the present dearth of salesmen is the result of two conditions—first, the great demand and consequent high initial pay from the technical industries is absorbing most of the type of manpower that formerly went into selling, and second, that the past and present overemphasis on "security" is making the hard work of selling unattractive, in spite of the potentially higher earnings that result from the extra effort.

There is also the problem of training salesmen, which has obviously not been answered as far as the average LPG dealer is concerned, Mr. Abell continued. He told the group that beginning with the September issue and continuing for many months, BUTANE-PROPANE News will begin publication of a sales training program worked out along the lines of the highly successful BPN safety training program that was published in 1953 and '54.

Although the late hour made it necessary for Mr. Abell to adjourn the meeting, manufacturers and dealers present at the forum asked that BPN schedule another Pacific Coast forum in the near future so that more planning on methods of merchandising gas appliances can take place with a continued exchange of information between gas appliance manufacturers and L. P. gas dealers. ■



Next month, a report on the third dealer-manufacturer appliance forum, just held in Nashville, Tenn. Then, New York, Cleveland, and Chicago.

ZONE HEATING: a wide open market

Part one: The present status of warm air heating

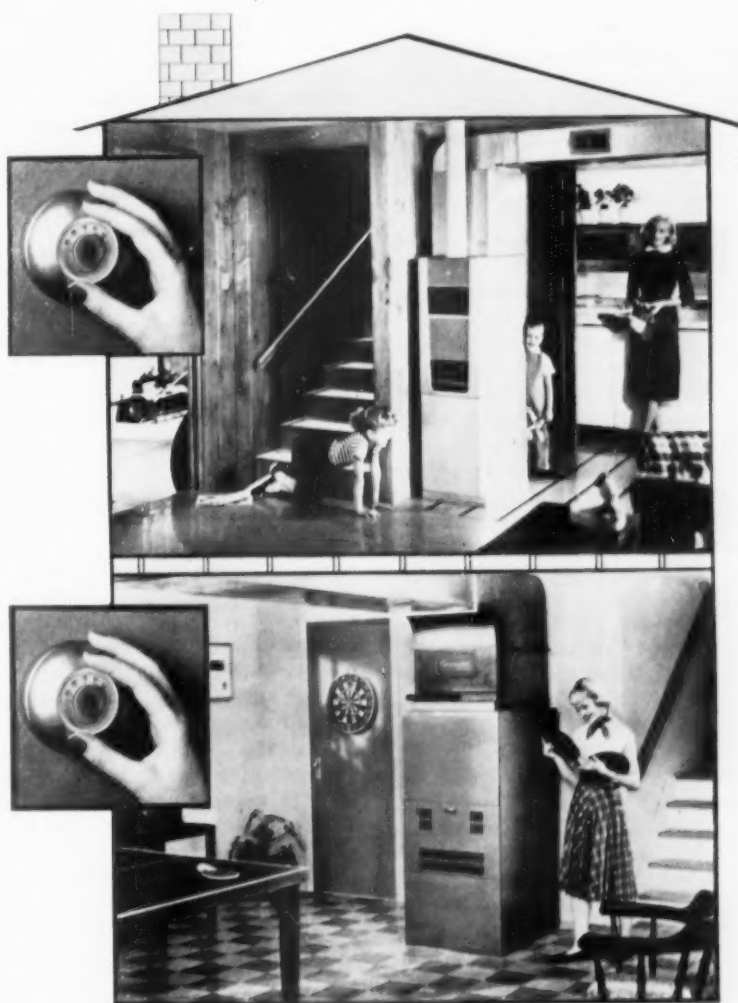
By C. W. NESSELL, Chairman • Field Investigation Committee
National Warm Air Heating & Air Conditioning Association

DURING the past six or seven years, our mobile laboratory has literally traveled from coast to coast, has made between 150 and 200 complete surveys and innumerable "snooping" sorties, has been in every conceivable style of house, and tested every imaginable type of warm air heating and cooling system, including some that are a bit difficult to imagine. In other words, we have been "around" and I want to tell some of the things we have seen and heard at the user level of this industry.

It is obvious from our conversations with the homeowner in his own backyard that there are shortcomings in the warm air heating and air conditioning industry today. That's why equipment manufacturers, heating and air conditioning contractors, builders who buy your equipment, and the firms that supply automatic controls for it have become accustomed to hearing complaints like these . . .

"My feet are cold and my head is hot and I want you to do something about it . . . The floors are so cold in here that my cat is sleeping on the piano and I have to tuck my toes underneath me every time I sit down . . .

"One side of my house is too hot and the other is too cold—



Two chickens in every pot, two cars in every garage, and two or more thermostats operating two furnaces in every home.

is there anything you can do about it?

"It is so cold in here that the bathroom mat is frozen to the floor. There's a draft—a cold one—blowing on the back of my neck right now.

"It's so cold in here we can't stand it. The baby has a cold and I know he got it from playing on these cold floors.

"I'm not comfortable."

"The average homeowner and more specifically his wife, know that they are either comfortable or uncomfortable in their home in the dead of winter or the heat of summer. But they seldom know why."

The average homeowner, and more specifically his wife, know that they are either comfortable or uncomfortable in their home in the dead of winter or the heat of summer. But they seldom know why. If they are comfortable they thank their lucky stars that they were fortunate enough to get a well constructed house that for some reason or other had a system in it that gave comfort performance.

If they are uncomfortable, they blame the house construction and shrug off the heating or cooling system with the comment that one should not expect to be too comfortable in a single occupancy house in the suburbs. Even the "toe-tucker" whose bathroom rug was frosted to the floor opined that the heating system was all right but that the apartment they had in Detroit was more comfortable. From what we later saw of the heating of that home I was certainly inclined to agree with her.

Today this industry has more indoor comfort to offer the homeowner than ever before in history, irrespective of the kind of house he lives in. You can assure the home maker that the floors of her home will be warm and never a chill to her feet or a health hazard to children, that there will be no layer of frigid air around her

ankles nor torrid air around her head and shoulders; that the variation in room air temperatures between burner operations will be imperceptible; and that air temperature will not vary more than two or three degrees from room to room. We know how to eliminate room air stratification by continuous air circulation and how to prevent cold drafts that cause discomfort. In short, this industry knows how to provide the ultimate degree of indoor comfort.

We have reason to boast of our "know-how" of heating and cooling a home but when we try to tell the home owner about it we speak in meaningless generalities and use a technical jargon that sounds like double talk to him. When homeowners silently accept cold floors, frigid air around the ankles, torrid air around the head, and drafty registers that blow

"We have reason to boast of our know-how of heating and cooling a home but when we try to tell the home owner about it we speak in meaningless generalities and use a technical jargon that sounds like double talk . . ."

cold air down the back of their necks as an inevitable part of the performance of an indoor comfort system, the conclusion is inevitable that something is wrong. It appears that we have been negligent in telling the homeowner the facts of comfort heating.

We offer "guaranteed heating," such as "the house will be heated to 70° indoors when it is some specified temperature outdoors." This means little or nothing since rarely is mention made of where the 70° will be. Will it be at the floor and in every room of the house, or only at the thermostat—it's anyone's guess.

Floor surface temperatures, temperature variations between burner operations, continuous air circulation, and room to room temperature balance are never mentioned. Such a guarantee could be applied to a coal stove in the old fashioned parlor and be equally

applicable. Homeowners are too often satisfied with such a guarantee because they know no better, and we have dismally failed to tell them otherwise.

Another and better guarantee is that the system will be certified as being installed in accordance with the appropriate manual of the association. This is all to the good. It hits at the roots since an indoor comfort system is actually manufactured by the installer in the basement of the house from individual components that include the heating or cooling unit, registers, pipes and fittings, and other necessary appurtenances. However, the best furnace ever manufactured will not in itself assure good heating unless it is properly manufactured into the heating system since it is only one part in an assembly that must be correctly put together.

When we tell the homeowner that the installation is certified to be installed in accordance with one of the manuals, we are literally handing him a mechanical installation specification that he does not understand. His primary interest is the comfort of his wife and kids, and perhaps his mother-in-law too, and not in Cfm's, Btu's and properly sized ducts. He would not know a Btu if he saw one and probably could not care less about it. We talk of comfort but never define it.

Our industry methods of merchandising indoor comfort—the real end product that we have to sell—are obsolete and archaic. They are reminiscent of the automotive industry in 1907, when automobiles were sold on the strength of their components. It had Goodrich tires, Delco-Remy ignition, Sparton plugs, Klaxon horn and perhaps a Continental motor. Because the parts were good, the riding comfort was as-

"We offer guaranteed heating, such as 'the house will be heated to 70° indoors when it is some specified temperature outdoors.' This means little or nothing since rarely is mention made of where the 70° will be."

sumed to be good. That sort of merchandising was understandable for guys like myself that expected to spend every Saturday morning removing the carbon from the engine head, but the non-technical person who was only interested in a comfortable ride did not know what they were talking about.

Now the automotive industry sells on appeals such as "power to pass," "safety," "roadability," "beauty," "ball-joint suspension," and even the "forward look," all the sort of things that a buyer, man or woman, can understand and relate in measurable terms to their own way of life.

This industry must revise its merchandising appeal if its high level reputation is to be maintained and the current surge of cheaply installed, poorly performing jobs, is to be stopped. We must sell the taste and aroma of the apple pie instead of the recipe that the cook used to make it.

In addition to manuals that tell the installer how to put in a good job, we must tell the homeowner what the job installed, according to the manual, will do for him in terms of his comfort. We must have comfort performance standards that specifically define what indoor comfort means in specific terms, and it must be written in Kitchen English.

When such a set of comfort performance standards are available, the homemaker will have something that she understands that she can use to judge one heating estimate against another by insisting that certain comfort standards be the basis of the guarantee. Then, and only then, will the cut-the-price, skimp-the-job, wages-and-no-profit, fly-by-night operator discover that there are other considerations in a job beside the "lowest" price.

"This industry must raise its merchandising appeal if its high level reputation is to be maintained . . . we must sell the taste and aroma of the apple pie instead of the recipe that the cook used to make it."

When we reviewed the operating characteristics of 80 field investigation committee surveyed houses, we discovered that in spite of the industry "know-how," the comfort conditions in too many homes are poor and that there is little to boast about.

Only 30 of the 80 jobs provided for continuous air circulation with continuous blower operation when the outdoor temperature dropped to 35°. On one job the outdoor temperature had to drop to 0° for CAC operation. Only 31 jobs had showed a temperature variation of 1½° or less between burner operations, and only 39 had floor-to-sitting-level temperature differences less than 3° at an outdoor temperature of 30°.

Only 29 of 50 basementless houses had floor surface temperatures 65° or warmer in the center of the rooms and these were better than usual installations. Had

"A review of field data shows that only 31 jobs out of 80 had room-to-room temperature difference within the desired 3°. Some were as high as 7° to 10°. This suggests improper balance or no balance at all."

we concentrated on typical project houses, the percentage with favorable floor surface temperatures would have been pitifully small.

Floor surface temperatures in the occupiable areas along the outside walls and corners in all but a very small percentage were far too cold for comfort.

The review of these 80 FIC reports indicates an inherent difficulty in maintaining a room-to-room temperature balance with 2° or 3° and that the temperature balance was not consistent throughout the 24 hours of the day.

The inevitable conclusion is that because of changes in house construction, the use of larger glass areas, and changes in floor plan arrangement, it will be impossible to maintain good room-to-room temperature balance without the use of two or more thermostats.

General industry practice indicates that a well balanced job should have no more than a 3° temperature difference between rooms. In other words, 72° in one room, 71° in another and perhaps 74° in a third—this to continue around the clock.

We are not doing it. A review of field data shows that only 31 jobs out of 80 had room-to-room temperature differences within the de-

"... because of changes in house construction . . . larger glass areas and changes in floor plan arrangement, it will be impossible to maintain good room-to-room temperature balance without the use of two or more thermostats."

sired 3°. Some were as high as 7° to 10°. This suggests improper balancing or no balancing at all, but this is not always the case.

Job data taken in the evening shows that many were balanced as well as you or I or anyone else could possibly balance them. The wide temperature variations were due to changes in heat losses from rooms or entire areas of the house as the orientation of the sun affected various wall, glass, and roof surfaces.

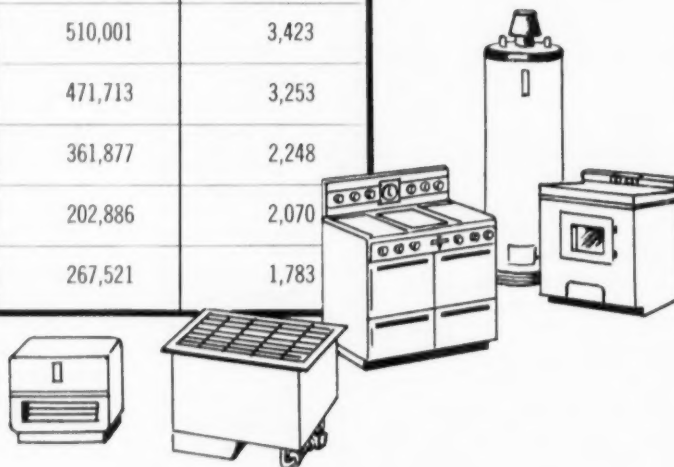
Nor do these cold figures tell the full story. The differences reported were based on average room air temperatures taken hourly from mid-morning to mid-afternoon on a single day. The data does not reflect variations of temperature within a given room or an area throughout the day, nor does it indicate the change in room air temperatures at night or with variations in outdoor weather such as the direction or intensity of sun and wind.

There have been some radical changes in house construction and occupancy habits over the past 15 years. The old style two-story box house could be adequately and satisfactorily heated by a single furnace and a single thermostat. But a great many of the new style homes of today cannot be. Next month, in part two, we will see exactly why. ■

Mr. Bulk L.P. gas Dealer:

HOW DO YOUR APPLIANCE SALES STACK UP?

APPLIANCE	NUMBER OF DEALERS REPORTING	TOTAL \$ VOLUME 1956	AVERAGE \$ VOLUME PER DEALER, 1956
Ranges	235	\$2,728,196	\$11,609
Commercial cooking	87	623,425	7,166
Room heaters	220	1,235,782	5,617
Water heaters	243	1,262,576	5,196
Floor furnaces	149	510,001	3,423
Unit heaters	145	471,713	3,253
Clothes dryers	161	361,877	2,248
Refrigerators	98	202,886	2,070
Wall furnaces	150	267,521	1,783



**Presenting the results of the ...
BPN 1957 LPG APPLIANCE SURVEY**



survey

Total calculated L. P. gas appliance sales:

MORE THAN \$122 MILLION

Survey shows LPG dealers are really moving appliances

L. P. gas bulk plant distributor-dealers play an important part in the marketing of L. P. gas appliances. Conservative calculations, drawn from a BUTANE-PROPANE *News* survey made last April, showed that bulk plant dealers alone sold \$122 million worth of LPG appliances in 1956. This does not include LPG appliance sales by thousands of bottle gas dealers, regular appliance dealers, department stores and hardware dealers.

A total of 440 bulk plant dealers in 42 states and Canada replied to the survey. Of those responding, 364 gave dollar volume of appliance sales. Total sales of those 364 for 1956 was \$18,648,511. This is an average of \$51,232.17 per dealer.

Median sales per dealer surveyed was \$20,000. That means there were just as many dealers who sold more than \$20,000 worth of LPG appliances as there were who sold less than that amount.

And 95 per cent of all bulk plant dealers who answered the survey sell appliances. BPN has verified 6416 bulk plant distributor dealers. Eliminating the 5 per cent who do not sell appliances leaves 6095 who do. Multiplying this number by the conservative median, we get the \$122 million total sales figure. This figure is probably considerably higher.

Of the 440 dealers responding, 284 or 64.5 per cent stated that they sell central heating units. The 244 of these dealers who gave sales figures for 1956 sold a total of 5523 central heating units, an average of 22.6 units per dealer. Ninety per cent of those who reported selling central heating systems stated that they make their own central heating installations.

Ranges provided LPG dealers with the highest volume of appliance sales with 235 dealers reporting total range sales of \$2,728,196. This is an average of \$11,609 per dealer. Although only 87 of the dealers who answered the survey gave their 1956 sales figures for commercial cooking equipment, those sales were so high that commercial cooking took second place among all appliances in average

dollar volume per dealer. Average commercial cooking sales for the 87 dealers was \$7166 each.

A complete report on sales volume, appliance by appliance, is shown in the table which accompanies this article. Dealers might compare their 1956 dollar sales volume against the average shown on the last column of the table to see how they stack up. Remember that this average is drawn from those answering the survey only, although it represents an excellent cross-section of the nation.

The purpose of the BPN appliance survey was to determine the average volume of appliance sales per dealer, and to locate the roadblocks that keep this volume from going a great deal higher. We felt that these figures would emphasize the importance of the LPG dealers as outlets for the appliance manufacturers. With this desirability established, we thought it might be possible to promote better cooperation between manufacturers and dealers to bring about a big boost in appliance volume through the LPG dealers.

Several important gas appliance manufacturers frankly admit that they do not understand the LPG industry, and that they have not been able to develop the expected

share of our dealers' sales volume. On the other hand, many LPG dealers have told us that they have not been able to make satisfactory arrangements to handle certain lines that they would very much like to have.

In our opinion this situation stems from too little mutual understanding between manufacturers and the dealers. BUTANE-PROPANE *News* is now trying to iron out this situation through studies such as this, and through a series of manufacturer-dealer forums where both groups talk their problems out directly across the table. (See reports in the July 1957 issue and in this issue).

The 440 dealers responding to the survey had a total of 356,059 bulk customers and 375,454 cylinder customers. Only 59 of the 440 bulk plant dealers had no cylinder gas customers and 14 of the dealers had *only* cylinder gas customers—none on bulk gas. This shows that most bulk plant distributor-dealers are still heavily in the cylinder gas business as well as the tank gas business.

The importance of the LPG dealer to an LPG appliance manufacturer cannot be underestimated. BPN is carrying that message to the manufacturers. ■



Scenes such as this one in the showroom of Green's Fuel of Florida Inc., Bartow, Fla., are taking place in more than 6000 bulk LPG dealer showrooms across the nation. Special promotions and hard selling sold heavy L. P. gas appliance volume in 1956.

Rx for cutting your own throat

Some notes on
L.P. gas rates

By VICTOR T. MAVITY, President
Southern Liquid Gas Co.

THERE is only one source of money for any successful L.P. gas business. All the money spent for storage plants, trucks, tanks, pipes, pumps, meters, adding machines, typewriters, and necessary and useful equipment of all kinds—as well as for the gas itself—and all taxes, insurance, payroll, advertising, legal, and all other various and miscellaneous expenses, and the profit, too, must be paid by the people who use the gas.

No matter how the bookkeeping differentiates between capital accounts and expense accounts, in the final analysis, the customer must pay it all, to the last cent.

One of the worst possible errors that can creep into any dealer's thinking is the tendency to look on depreciation as a bookkeeping item that can be juggled around or ignored.

Depreciation is just as real a cost as the rent, or the wage paid to the deliveryman. But since it is a deferred cost, to be paid in the future and at indeterminate times, it is sometimes minimized or even conveniently forgotten as a true item of expense when setting gas prices.

A gas cylinder, for example, is worth as much from the standpoint of its earning power when it is a year old as when it is first installed. It is just as serviceable at five years, say, as at one year of age, and so until the day it finally arrives at the end of its useful life. On that day its service value drops to zero. This change in value from original cost to zero is sudden, abrupt. But since we cannot know the exact day of its retirement, prudent management will accrue over the years the full cost of the cylinder so that there will be a reserve fund adequate to purchase a new one when the original is retired.

Some gas companies require the customer to pay immediately for the equipment needed on his premises to serve him. Others furnish such equipment, and re-

tain ownership, but collect for it over the years by adjusting the gas rate accordingly.

In making a cost analysis of expenses it is quite apparent that some costs are almost exactly proportional to the quantity of gas sold, some are rather closely proportional to the number of customers served, and still other costs are only remotely proportional either to customers or volume of sales.

A study of most situations will reveal those costs which are directly proportional to volume of sales to be:

1. Cost of the gas plus freight to storage plant.
2. Cost of operating storage plant.
3. Cost of delivering gas to customers.
4. Cost of gas lost or unaccounted for.
5. Depreciation of delivery equipment.

Costs that bear a fairly close relationship to number of customers are:

1. Office expense.
2. Service expense.
3. Certain Ad Valorem taxes.
4. Insurance.
5. Depreciation of equipment on customers premises.

Costs which are relatively fixed and only remotely vary with volume of sales or with number of customers served:

1. Rent.
2. Utility expenses.
3. Certain Ad Valorem taxes; license taxes.
4. Officers' and managers' salaries and expenses.
5. Interest on borrowed money.¹
6. Depreciation of bulk plant.

There is, of course, some overlapping, and doubt may exist in some instances as to whether certain

(1) Interest is not a true operating expense because the gas company is supposed to have adequate capital. However, we list it here as an expense because nearly all L. P. gas companies are notoriously short of capital.

L. P. gas rates . . . Raising prices can increase your profits

expense is proportional to the quantity of gas sold, to the number of customers, or perhaps to neither.

An equation of profit might be developed by assigning symbols to the various factors as follows:

- Let, P = all costs proportional to volume of sales
 U = all costs proportional to numbers of users
 F = all "fixed" costs, which are not directly proportional to either volume or number of users
 Q = gallons of gas sold
 H = number of customers
 r = rate or price per gallon
 i = change of price per gallon
 h = change in number of customers.
 q = change in number of gallons sold
 G = Profit

then

$$G = Qr - P - U - F \quad (1)$$

If an increase in rate is made we can expect a downward change in Q and in H , so that the equation of profit becomes:

$$G = (Q-q)(r+i) - \left[P \left(\frac{Q-q}{Q} \right) \right] - \left[U \left(\frac{H-h}{H} \right) \right] - F \quad (2)$$

Suppose we have the following situation:

Total gallons being sold per year— $Q = 1$ million.

Total cost delivered to customers' storage— $P = \$110,000$.

Total number of customers— $H = 1500$.

Total costs proportional to users— $U = \$30,000$.

Total fixed costs— $F = \$20,000$.

Price of gas— $r = 17$ cents per gal.

Then from equation (1)

Profit— $G = \$10,000$.

Now suppose we increase the rate r from 17 cents to 18 cents and that we lose 100 customers whose gallonage totals 67,000 gal. per year.

Then $r = .17$

$i = .01$

$h = 100$

$q = 67,000$

and from equation (2) $G = \$17,310$, which is \$7,310 more profit even after losing 6.7 percent of the customers and 6.7 percent of the gas volume.

But suppose we lose 10 percent of the customers and 15 percent of the volume.

Then $r = .17$

$i = .01$

$h = 150$

$q = 150,000$

and from equation (2) $G = \$12,500$.

Who would believe it! Twenty-five percent more profit after losing 10 percent of the customers and 15 percent of the volume. Just by increasing the price from 17 cents to 18 cents per gal. But in most cases a price increase does not result in very much loss of business.

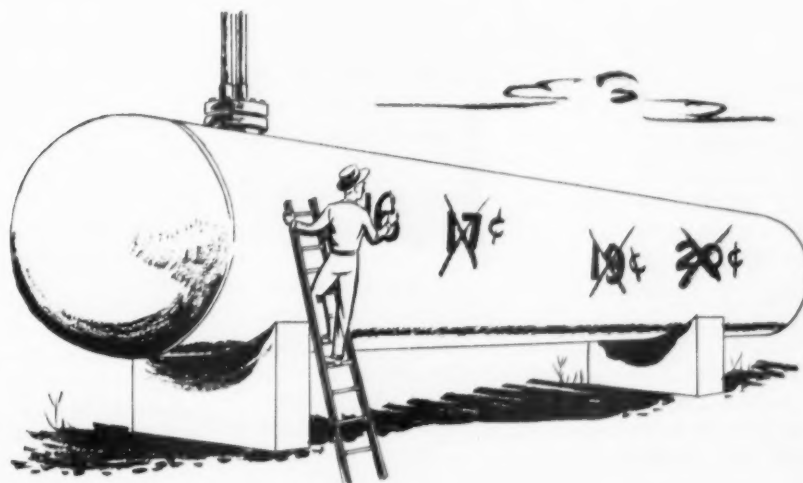
Now let's see what happens to the gas man who covets his neighbors customers and tries to steal them by offering a reduced price. If volume, cost, customers, etc., are the same as before, then his profit at 17 cents per gal. is \$10,000 as before. If he reduces the rate by one cent and gains 150 customers and sells 150,000 gal. more per year, his profit equation would be:

$$G = (Q+q)(r-i) - \left[P \left(\frac{Q+q}{Q} \right) \right] - \left[U \left(\frac{H+h}{H} \right) \right] - F = \$4500$$

So, with a 15 percent increase in volume he loses \$5500 per year and has to work a lot harder than before.

Now for a real headache we invite you to figure out what would happen if the cut-price artist manages to take away 300 of his competitor's customers and has to add another delivery truck and driver to make the deliveries.

Sometimes the price cutter tries to collect the full price from his regular customers and only offers the cut rate to his competitor's customers. When the regular customers find out about it, however, they too want the lower rate and sooner or later they usually get it. ■



Scientific Management Procedures

THE KEY TO PROFIT

Part three

Records help reduce fuel delivery costs

By WILLIAM W. CLARK

FUEL delivery cost remains one of the most difficult to reduce figures in an LPG dealer's overhead. High per-mile sales gallonage is still a goal that eludes many of the best.

How to attain that goal is a matter of argument. Each dealer favors his own delivery scheduling system, whether it is a degree-day, a zone, or a combination of zoning and "relying on the route man."

Some dealers still cling to the

idea of waiting until the customer calls for gas, but their numbers are few. More each month are turning to 2-way radio, but so far they too are numerically insignificant.

Zone delivery and collection

The zone system continues to rank as the undisputed choice of

the vast majority of dealers throughout the country. In the BUTANE-PROPANE *News* survey, 89 of 170 respondents were using it in one of its various forms. Large and small companies alike found it to their liking.

One of the largest users of the zone is Suburban Propane Corp.'s Gainesville, Va., plant. District Manager A. C. Wineholt is a strong believer in zone loading on a cycle system.

Suburban delivers metered gas, and since Suburban drivers read meters at regular billing intervals (30-day for commercial and heating customers and 60-day for smaller users), it makes sense to deliver fuel on the same trip. This, however, eliminates the degree-day system from the Suburban plan of operation. If customers read their own meters, however, degree-day systems can be used.

Suburban deliverymen record meter readings on a separate delivery ticket for each customer (Fig. 1). This ticket may be used for 35 consecutive readings, so a lengthy meter reading history is recorded on each ticket. The tickets carry date, previous and present readings, and consumption. The deliveryman computes gas

With costs going up and competition stiffening, dealers can no longer afford to fill customer tanks and replace cylinders on a hit-or-miss basis. The number of miles a truck must travel for every gallon of fuel dropped is becoming increasingly important. Proper records can help reduce fuel delivery costs, improve service to customers, and cut paper work while easing collection methods. Here is how the delivery problem is handled by various dealers across the nation.



Fig. 2. Three-stub card bills are sent out by Suburban on the day following delivery. The bills are prepared on a bookkeeping machine which simultaneously produces the other records desired.

SUBURBAN PROPANE GAINESVILLE, VA		GAS CORPORATION TELEPHONE HATMARKET 4-3885		100 PLEASE RETURN THIS STUB WITH YOUR PAYMENT MAKE CHECKS PAYABLE TO S.P.C.C.		OFFICE COPY DISTRICT NO 128		John Jones R.F.D. # 2 Box 104 Gainesville, Virginia		236-1920	
DATE	READING	DATE	READING								
MAY 16 '56	4 56	JUL 16 '56	6 22								
Day Used	166	Gas	G	AMOUNT OF BILL	11.55	PAST DUE DATE	JUL 16 '56	AMOUNT OF BILL	11.55	PAST DUE DATE	JUL 16 '56
PG equals Previous Day				TRIPPLE IF ANY INCLUDED				1 DECIBELIN = 100 POUNDS OR 2.942 CU FT			
for... COOKING WATER HEATING				RENT A WATER HEATER FOR ONE P... 1.95 A MONTH							
DATE		CUSTOMER NO		PAYMENT		AMOUNT DUE		BALANCE		3-1100-108-65M	

the field. It would seem to be a high-production-type method of scheduling; yet the record of users gives the lie to this assumption.

Degree-day scheduling has some enthusiastic supporters. One such is Andrews Oil Co., Green Bay, Wisc.

In setting up a schedule for a new customer, Andrews is careful to check and re-check usage fluctuations in order to establish a dependable pattern. During the first few months, Andrews repeatedly solicits usage information from the customer via a postcard mailing (Fig. 4). Once this usage pattern is set, he is assigned a spot on the route.

According to Manager Ralph

Kailler, the company is thus able to route its trucks "very effectively."

Briefly, the degree-day system is a method of gauging probable usage for heating customers. Essentially, it is no different from any usage estimating methods, except that it is tied to the weather.

In a degree-day routing system, the amount of fuel used by a customer during a certain period can be figured from the average temperature during that same period. The difference between the average temperature for a 24-hour period and 65° gives the number of degree days. For example, if the average temperature is 60°, there are 5 degree days. If the

average is 25°, there are 40 degree days. Some dealers figure each degree drop below 30° as 1½°, but this is the exception.

Each day's degree days are shown in the newspaper, so a count of them can be kept using this source. A test period is conducted for each customer to calculate how many degree days it takes a customer to use one gallon of LPG. This figure is called the "K" factor. If a customer uses 200 gal. during 600 degree days, the "K" factor is 3, one gallon every three degree days.

After each delivery, the driver meters the tank and notes this on the delivery ticket for the use of the office. Here date, gallons delivered, gallons in the tank after delivery, degree days at delivery (taken from a chart of accumulated degree days), and the next delivery in degree days are posted to the customer's card. This last posting is calculated by subtracting the ideal reserve from the gallons in the tank after delivery, multiplying the remainder by the constant, and adding this figure to the degree days at delivery.

Degree-day systems can be set up in a number of ways, both manually and by machine. Remington Rand has adapted a system to its Kardex visible equipment—or rather, a variety of systems. Each method, says Remington Rand, has its advantages, dependent upon the size and type of operation.

Kardex is a bank of slides, each slide containing a number of acetate pockets, arranged in shingle fashion so that the tip of each is always visible when the slide is opened out. Each pocket holds an individual set of records in card form.

Figure 3 shows a collection of forms used in a single machine operation. The top left form is an order ticket from Parker Appliance Co. The middle left form is a customer's bill with a table of usage and charges. The middle right form is a ledger with columns for date, gallons, and degree days. The bottom form is a distribution ledger with columns for inventory and sales.

Fig. 3. From the order ticket (top left), the machine operator posts the post card bill and customer's ledger in a single machine operation. All computations and line proving are automatic. The distribution ledger is posted weekly to show a complete breakdown on sales and an inventory of cylinders on hand.

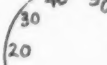
Hadley has an interesting degree-day system available which makes use of its "rocket" card, supported by a separate posting card. The rocket is a rectangular card with holes punched at regular intervals all about the periphery (*Fig. 5*). Each hole represents a code, numeric or alphabetic—name or degree-day, for example. The holes are used for sorting purposes, and by ingenious coding and combination sorting methods.

[illegible][illegible]

At the start of a heating season—usually before September 1—degree-day constants for each customer are computed (or copied from the previous year's records, as the case may be). The appro-

If machines are used to do the degree-day calculating, it is feasible to re-figure usage after every delivery. In this way, trends in usage can be reflected immediately rather than being depen-

Fig. 4. Andrews Oil Co. is careful to check and re-check fuel usage of a new customer before assigning a spot on the delivery route. Usage information is solicited from the customer via a post card mailing.



HELP us to HELP YOU —

If your propane bulk tank gets down to 20% or less we'll appreciate getting this card from you. We try to get to your place by the time your tank gets this low — but just in case we don't gauge it exactly right — you'll do us a favor by mailing this card.

On _____ (date) our liquid level gauge showed _____ %.

BE SURE AND SIGN YOUR NAME _____

Address _____

dent upon management—or clerical—decision.

Friden recommends a particular method for use with its ACG Desk-Type Calculator. This machine has the ability to hold a number as a constant addend or dividend.

The Friden method takes today's degree days (locked in as a constant), degree days of previous delivery, and gallons of fuel delivered today. The old degree day figure is subtracted from the new. The difference is divided by the gallons to get the number of degree days per gallon consumed.

This dividend is multiplied by the ideal delivery figure to get the degree days to the next delivery; then the result is added to the degree-day figure to get total accumulated degree-days to the next delivery.

Burroughs recommends several alternate methods for use with the Sensimatic bookkeeping machine. One is degree-day calculation and proof wherein postings are simultaneously made to driver's ledger and customer ledger, and the next

delivery degree-day is calculated at the same time.

As the day's work begins, the operator keys in today's degree-day number, which prints automatically with each posting. The "K" factor is indexed on the keyboard and the operator selects keys representing the gallons in the tank. The machine then computes next delivery day and completes the posting.

The next delivery ticket, with customer name and address thereon, may be used in place of the driver's ledger. The machine prints the next-delivery degree day on the ticket, which is then placed in the degree-day file by driver, ready for use on the next delivery.

Another method contemplates the posting from a separate degree-day chart rather than a machine calculation for converting gallons to degree days. As each account is posted, the number of gallons delivered by each driver is automatically printed on a tape and accumulated in the machine. The customer ledger, with full ref-

BPN MANAGEMENT SURVEY

Do you use a degree-day system for fuel delivery?

YES 12%

NO 88%

erence, is posted at the same time the driver's record is being completed.

The next-delivery ticket can be used instead of the driver's ledger under this plan in the same way as with Plan 1.

Degree-day records can be tied in with accounts receivable and produced in a single operation, using another program. From one indexing of figures, gallons delivered, invoice number and charge can be printed on the respective forms. Ledger and statement are produced side by side over a proof journal. The delivery ledger is posted simultaneously by indexing degree days of usable fuel, taken from the chart, and degree days today.

Degree-day systems have certain obvious advantages. But blind, slavish adherence to such a system could conceivably backfire. A small company scheduling strictly according to degree days could soon find itself doing more traveling per drop rather than less. As with any system, a great deal of flexibility is a must.

In the end, it will probably develop that for most dealers, a modified system attuned to their needs will be best. The zone is still basic, it's proved, and it makes sense; within it, a flexible breakdown by degree days is wise.

But no matter how it's done, there will always have to be an allowance for a margin of error. The occasional call in the night from the desperate customer who is out of gas is probably an unavoidable curse—despite the best-laid plans. ■

Fig. 5. One degree-day system makes use of punched cards for sorting purposes.

They do things big in Florida

THE Florida State Fair annually draws 1½ million people to Tampa and each year the Florida LPGA makes the most of it. Again this year, the Florida state association bought a block of space and resold sections of it to LPG dealers, LPG equipment and appliance manufacturers and their distributors. The result was one mammoth concentrated display aimed at stopping every fair visitor. And stop they did.

Gas lines were already in place from use during past years, so outlets were available for demonstrations of all appliances. Heating units, dryers, ranges and other LPG equipment were in full operation during the entire fair. Cooking schools were held right in the exhibit area. The gas lines were originally furnished by association members with one member donating the material, another doing the installation, etc.

In charge of the exhibit this year was a committee of three Florida LPGA members headed by R. E. Whetsell, Dearborn Stove Co. On his committee were John Keeth, Caloric Appliance Corp., and Robert Merklas, Southeastern Natural Gas Corp. ■



A portion of Caloric Appliance Corp.'s display in the Florida LPGA-sponsored exhibit at the Florida State Fair is shown above. Cooperating in demonstrating the ranges and other Caloric appliances was a Robertshaw-Fulton Co. home economist.

Two fair visitors relax (right) in the huge display sponsored by Gulf Cities Gas Co., St. Petersburg (below). The display included LPG equipment of Hedges Manufacturing Co. (water heaters), Florence Stove Co., Martin Stamping & Stove Co. (heating), and LP Equipment Co. (Servel, Reznor, and Day & Night). The exhibit was manned continually and hundreds of prospects were obtained.





Hi, ho

One of the big hits of the entire fair was this "Carefree Kitchen" featuring all-gas appliances including built-in oven and range, refrigerator, and Youngstown cabinets. The kitchen was packed with fair visitors the entire time. It was set up by Florida Radio & Appliance Co. Inc., Tampa branch.



Flarapco, Inc. (Florida Radio & Appliance Co., Inc., Miami) displayed Temco and Quaker heating equipment. Prospects for LPG equipment flocked the exhibits to get a view of the latest appliances.



Exhibits took effort and time, but nowhere else is it possible to show your wares and talk to 1½ million prospects during a few days as it is at a gathering of this type.

Pyrofax Gas Service explained L. P. gas service, Pyrofax ranges and Dearborn heaters to hundreds of persons each day.



and off to the fair

Southeastern Natural Gas Corp., an L. P. gas dealer, displayed a panorama of modern appliances that made prospective customer's mouths water. Southeastern coordinated its display with Tamco Supply Co., an equipment distributor, and Tappan Stove Co.



Tappan Stove Co. showed free-standing and built-in models in the Southeastern Natural Gas Corp. booth. Exhibit was a whopping success.



LPG appliances and equipment distributed by Tamco Supply Co., Tampa, also shared the Southeastern Natural Gas Corp. exhibit. A visitor cools off while looking.



LPG Equipment Co., Orlando, shows warm morning heaters. Ladies rest weary feet while inspecting L. P. gas appliances.

By
CARL ABELL
Editor

ONLY a few years ago it took a pound of sweat to produce and cure a pound of hops. The cost of labor made up the biggest share of the expense of bringing the crop to market. Competition from producers in Europe, where sweat was cheaper, was forcing the American growers to the wall.

Today the American hop-growing industry is largely mechanized, and propane is playing an increasingly important part in the rising prosperity of the American producers. U. S. production from 41 thousand acres totaled 62 million lb in 1952. This is more than half of the world production. Most of the rest is grown in northern Europe.

While the growing areas are rather limited, the hop crop provides an important product in world commerce. It is one of the necessary ingredients of beer and yeast, and is used extensively in the production of natural vitamins and in medicinal preparations.

The hop vine will thrive in many regions where it is not now grown. With mechanization to replace the former high labor requirements, it is quite likely that the growing demand will lead to the introduction of this crop in other farming areas. It requires a deep soil with good drainage, ample moisture during the growing season, and freedom from high winds. These conditions

are best met in river bottoms where wind conditions are naturally mild, or where there are protecting hills.

Dry atmosphere at harvest time is a great advantage, and this is one reason why most of the American hop production moved west. The weather helped in speedy curing back-in the days when most

drying was done with wood fires and natural circulation. With modern forced warm air dryers, the weather makes little difference so long as there is no rain or dew on the vines.

The seed pods of the hop are the marketable part of the plant. These are shaped much like pine cones, under 2 in. in length, with soft papery petals. They are pressed into 200 lb bales for storage and shipment.

Before baling they must be carefully dried and cured. Too much drying results in loss of aroma and flavor, and of the soft green color characteristic of full-flavored hops. Too much moisture content allows the baled hops to mildew, ferment,



The flavor for your beer comes from seed pods shaped like pine cones.

Better burps are brewing when butane cures the hops



Load balancing

Part five

and stick together, with great loss of flavor and value. The acceptable limits are between 5 and 10 per cent, with most producers shooting for a seven per cent moisture content.

Since the harvest is geared to the drying capacity, the old method employing variable heat and poor circulation through the layer of hops in the kiln was lacking in economy as well as uniformity. It was also slower, as the height limit of the pile in the kiln was from 24 to 30 in. With modern thermostatically controlled forced air heat, the depth of the pile has been increased to 40 and in some cases 48 in., and the drying is more uniform and faster.

For highest quality and market value, the hops must be picked about the time the pods mature. This makes the picking and curing a short season operation. In the leading producing areas of the West the harvest begins in August and extends for 25 to 28 days into September. The type of picking and curing plant generally used in that area has capacity to handle the crop from about 150 acres. It is a good summer load for the LPG dealer, providing a substantial demand just before the final summer filling of domestic tanks takes place.

Wood, coal, and oil are the other fuels now in use. LPG has great advantages over these other fuels, particularly in its clean combustion, quick and accurate response to thermostatic control, and the freedom from interruption of operations for maintenance of burners. The cured crop is free from foreign odors and flavors, and has higher market value. Propane is making steady strides in replacing other fuels for this use. The chief contender is diesel oil, which costs about the same per gal. as LPG in the Northwest, but contains more Btu. This is not as serious a disadvantage as it appears, since the entire propane fuel installation costs about \$5000 less than the burner for the oil, and there is a great difference in maintenance cost in favor of propane.

Down time for cleaning and maintenance of burners is another important factor. These interrup-



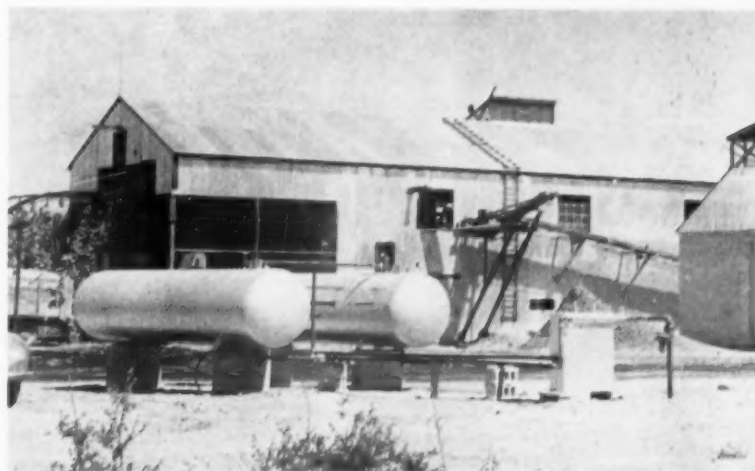
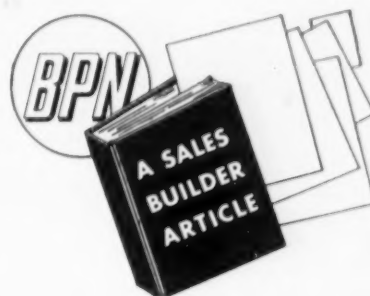
Hop vines are cut from the trellises and taken to the curing plant, where they are picked mechanically.

tions are very rare with propane, more frequent with oil. If prolonged, they can result in a major payroll expense, since the entire operating crew of 20 or more people can be idled.

Most of the larger growers own and operate their own kilns, but in some cases smaller operators take in custom work from their neighbors to keep their equipment busy throughout the short season. The typical 150 acre plant costs approximately \$75,000, complete with picking machine, dryer, cooler, and baler.

One of the most modern LPG-fired hop plants in the Northwest was completed and put in service last year by C. D. Baum, of Moxee,

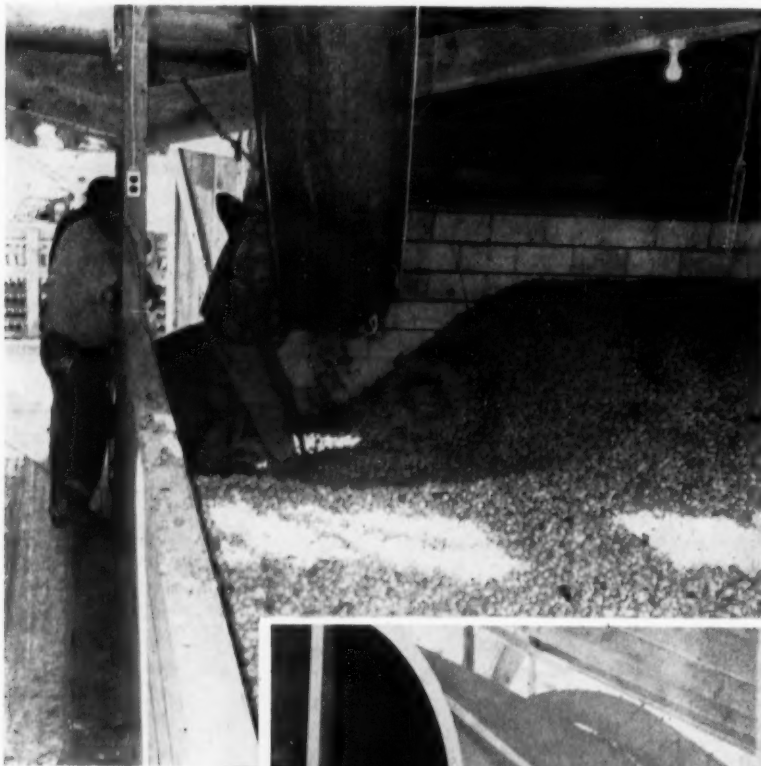
Wash. His operation is about as completely mechanized as any in existence, yet it requires a crew of 20, including those on the harvesting machines. Last year it required 20 days to handle the crop from 65 acres.



Fuel for the drying kiln comes from two 2000 gal. tanks and a 70 cfh vaporizer.

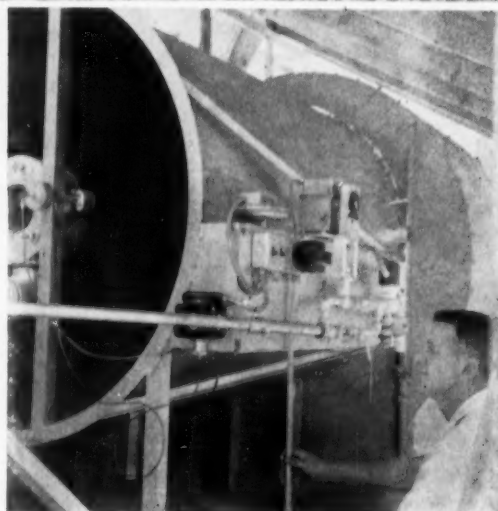


Hop processing plant—picking shed at left, drying kiln in center, cooling room and baler at right.



Above, the drying bin is filled to a depth of 40 in.; controlled heat at 135°F finishes drying in 8 to 10 hours.

Right, automatic safety controls on burner and blower shut everything down when anything goes wrong with gas, electric, or blower systems.



The hop vines grow to a length of 20 to 25 ft, and are trained up on wire trellises 16 ft above the ground. In harvesting, the vines are cut off at the ground and taken to the picking machine, where the seed pods are taken off by mechanical fingers. The hops fall on a conveyor. After mechanical cleaning to take out the leaves, the pods move by endless belt to the dryer, with women stationed en route to take out the imperfect pods.

The dryers (still called kilns because their predecessors were) consist of two sections, each 16 by 32 ft. The floors are slatted, and are covered with heavy open mesh burlap through which the heated air is admitted to the pile of fresh hops. The pods are leveled off at a depth of 40 in., and the full charge makes 10 bales, or one ton, when cured. The drying starts with incoming air at 135° F, and a static pressure of 1 to 1¼ in. This pressure is cut down about one-half when the hops are nearly dry. Early in the season the drying time is approximately 10 hours. Toward the end of the harvest the hops contain less moisture, and the drying time can be cut to 8 hours. The old type solid fuel kilns required from 18 to 20 hours.

Heat is supplied by individual burners and blowers for each of the two bins. The burners are Ransome Model V-4, with input of 3.8 million Btu at 15 psi on the fuel lines. They feed directly into Sturtevant blowers which move 32,000 cfm of air against the normal static pressure. There is a sensitive thermostatic modulating valve on each burner, and complete automatic safety devices shut off the gas and the blower motors if anything goes wrong, such as overheating, pilot outage, interruption of gas flow, or power failure. This installation was made by Arthur E. (Bub) Tenasse of Sunnyside Sheet Metal Works, Sunnyside, Wash.

Fuel comes from two 2000 gal tanks connected with a Mitchell 70 vaporizer, installed by Universal Gas and Service Co., Toppenish. This company also supplies the propane to this and a number of other hop dryers in the Yakima and tributary valleys. ■



Paul LeMay

...sagging

Without the complete co-operation of your LP-Gas supplier your profits can sag. Customers of Sid Richardson Gasoline Co. know the actual meaning of complete co-operation.

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How to sell more L.P. gas:

**Study and use the two new all-year programs
that start in BUTANE-PROPANE News next month—**

SALES TRAINING & SALES MANAGEMENT

“WHAT the L.P. gas industry needs most is a revival of old fashioned selling.” This has been the unanimous verdict of the industry people who have attended the meetings of appliance manufacturers and dealers sponsored by BUTANE-PROPANE News. Time after time this came up in the discussions.

Industry attention has been focussed more on “promotion” than on selling. Excellent promotion programs are now being carried out, and more are in the making. In view of the competition, we do not think this is being overdone. We actually believe that more promotion is needed. But promotion alone will not do the job. Promotion is just one step — the beginning step — in getting the necessary job done.

Promotion can only create the willingness to buy gas and gas appliances. By itself it does not create sales. Nothing happens until someone makes a sale. With very rare exceptions, sales are made as the result of personal interviews between salesmen and prospective purchasers. As an industry we do not do enough selling. We do not have enough manpower out on the selling job. We do not spend enough time selling our products and services.

We are being outsold by the electrical industry because they have us beat in both organization and manpower. In these respects the electric industry is set up so it has a natural advantage. It's operating companies are larger—in nearly all cases large enough to

have sales departments that do nothing but sell. It has sales managers who have nothing to do but supervise and direct the selling, and create programs for increasing sales. It also has closer industry organization and more complete interchange of ideas.

We have an industry composed primarily of small operating units, in which selling is a part-time activity of people who must function in many other jobs. Sales do not just happen — they must be made, and that takes time. Planning a sales program takes time. Training men and women to sell takes time. Training the rest of the company employees to support the sales program, and seeing that they give the support, takes time. In the many companies that make up our industry there is a tremendous duplication of effort that could be partially relieved if portions of the time-consuming activities could be done in a central place, and the results distributed to the various operating companies throughout the industry.

An industry magazine is in an excellent position to carry the part of the load that can be centralized. We refer particularly to the planning, guidance, and training activities — the work behind the actual selling. We on BUTANE-PROPANE News know that we can do this kind of job for the industry, because we have already done a similar job in connection with Safety Training. We planned and developed that program for the manager who did not have the time or the facilities to do the job for

himself. We proved that there are great advantages in having such a job done by the publication of such a program on a regular month-by-month basis in a magazine that reaches the entire industry. All the planning and preparation were done for the dealer. Everybody had the program, and there was nothing extra to buy.

In connection with the industry's sales problem there are two jobs to be done. First, we must do more selling. Whether this is accomplished by more effective selling by present staffs, or by the employment of additional personnel, it calls for a sales training program that reaches the entire industry. To reach its greatest effectiveness, the sales program must be carried out in a systematic, organized and imaginative manner. This is sales management. It is essential in every sales organization from the largest clear down to the “one man department.” An un-managed program is always haphazard, bungling, time-wasting and inefficient.

This is a double barreled assignment, and BUTANE-PROPANE News is going to pull both triggers. Beginning in September and continuing for a full year, we will present two series of monthly articles, one on sales training and the other on sales management. Because the domestic gas load is the backbone of the business these articles will be built around the problems of selling gas and gas appliances. We will provide a lot of ammunition, and help you learn to shoot. ■

Over a Quarter **MILLION DOLLARS**

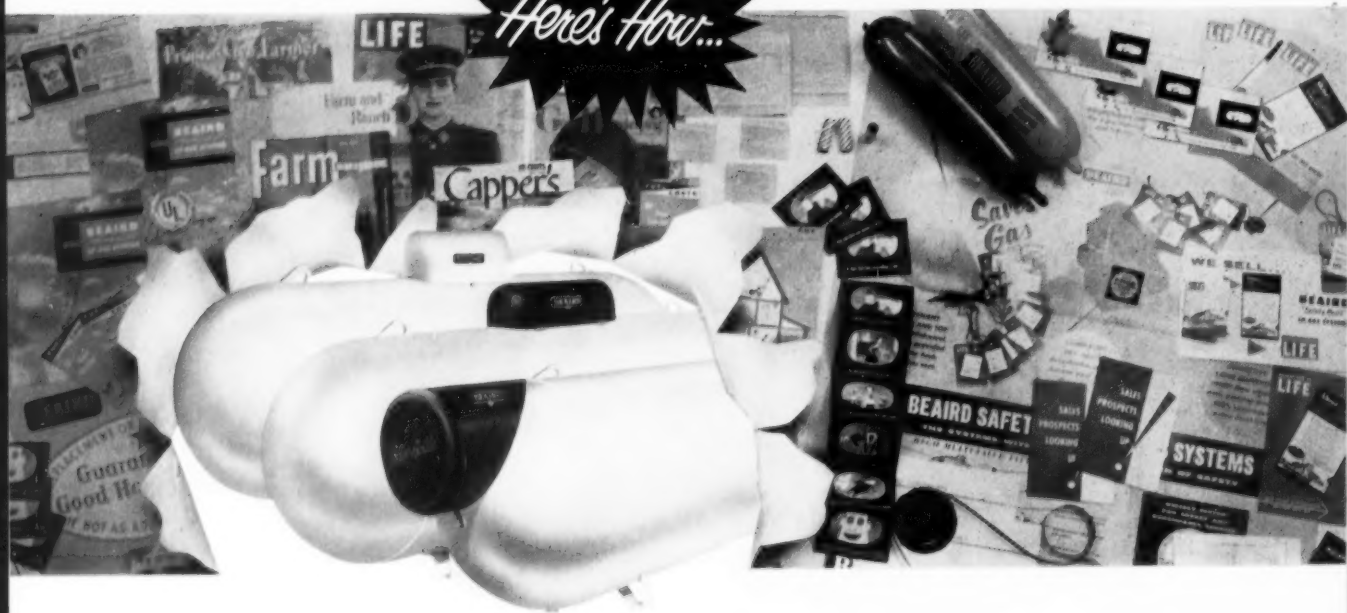


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Here's How →

Beaird has spent a whopping big \$263,990.85 during the past five years merchandising LP-Gas for you.

Here's How...



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POINT OF SALE

Window banners, store signs, streamers, balloons, wall charts and colorful product literature.

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Management's 7 great responsibilities

... and how Gas Inc. is facing them

By JOHN D. STONE • Gas Inc., Lowell, Mass.

MANAGEMENT has seven particular responsibilities in today's competitive market which should bear special attention. I should like first to list them and then tell how we at Gas Inc. handle them.

In order of importance, the seven responsibilities are:

1. Management's responsibility to the customer
2. Management's responsibility to employees
3. Management's responsibility to stockholders or owners
4. Management's responsibility to the community
5. Management's responsibility to the L. P. gas industry
6. Management's responsibility to political government
7. Management's responsibility to competitors, both within and without the industry.

This listing sounds more like a plan for a public relations program than it does as a partial listing of

a specific bill of management responsibilities. Actually, there is very little difference between good management and good public relations. Good management helps breed good public relations and sometimes even the reverse has its good effects.



1. Management's responsibility to the customer

Every L. P. gas marketer owes it to his consumers, each and every one, to see that they get the best possible service, from the first call made by the salesman to the actual installation, servicing of the installation, subsequent servicing of appliances, and future consumer contacts.

The salesman must not only know how to sell himself, his product and his company but he must know installation requirements and how to accurately, but honestly, make comparisons with other fuels. I mention "honestly" because it is so easy to mislead a prospect and when one is misled that prospect has been lied to; the loss of respect for your company goes without saying.

Like others, we find one of the best ways to help train a salesman is to send him out on an installa-

tion truck for a few days, then a few on a delivery truck, both bulk and cylinder, and finally on an appliance installation truck. This helps to reduce those telephone calls or letters which start off "your salesman told me..."

Your consumers deserve, and it is your responsibility to see that they get, a safe, legal, and efficient installation. It is incredible that in this year of 1957 we should still be talking about safe, legal installations. I use the term "legal" because so many of the several states have adopted pamphlet 58 and have made it statute law.

Even if your state has not made the provisions of pamphlet 58 a legal requirement you should never permit an installation to be made that does not meet every single requirement of these recommendations. I get awfully tired of hearing some of the older and larger marketers preach about their virtues and then finding installations in direct violation of the code set up by the National Fire Protection Association and the Board of Underwriters. There are hundreds of such installations in existence in our section of the country and many of them have been made within the past year. It should not be necessary to tell you what will happen if these flagrant violations continue. Not only may we be penalized by insurance carriers and not only may stricter and distasteful statutes be enacted but our competitors will make justifiable use of our own lack of vigilance and responsibility.

Your customer deserves, and should get, proper instruction in the use of appliances. If your installation men are not capable of giving this proper instruction then

When John Stone delivered his paper "Management's Responsibilities in a Competitive Market" before the Marketer's Section of the national LPGA convention in Chicago last May, your editors selected it as one of the high spots of the entire convention. We felt that the ideas should be presented to every L. P. gas dealer in the nation. This is an adaptation of Mr. Stone's talk.

it should be done by some other competent person in your organization, or if yours is a small firm, perhaps by yourself. Unless a customer knows how to utilize the many advantages of a modern gas appliance he or she will not be a fully satisfied customer and will be more susceptible to the claims of our competitors.

It is your responsibility to make certain that your customers get adequate and proper service and that an employee of yours is fully and properly trained in all phases of L. P. gas operation.

It is your responsibility to so price your commodity that it will permit you to make a fair and reasonable profit, provide funds for maintenance of your plant and customers' equipment, allow a portion for training of employees, and permit you to expand as your business grows. The discount marketer, the cut price dealer, cannot possibly do all these things and everyone of you have seen evidence of this. Obviously, you can't try the other extreme without unnecessarily penalizing your growth.



2. Management's responsibility to the employees

The second item is management's responsibility to his employees. This ranks second only to responsibility to the customer. While I refuse to comment on the part labor unions play in present day management I will be first to state that employees must be made to feel and to realize that they are a part, and a very important part, of any business, particularly this one of ours.

Persons who direct the affairs of an L. P. retail gas business must spend time and money to train members of their organization. This training is a constant, recurring demand on us. We can't expose an

employee briefly to any subject and then expect him or her to be aware of changes, improvements, and new methods.

So many managers think that if an employee is asked to work only 40 hours a week, if time off is provided on holidays, and some sort of insurance is provided or made available, all in addition to an annual vacation, that there is no further accounting as far as employees are concerned. How very wrong is this shortsightedness. Every man is secretly anxious to display his highest degree of skill or ability and each will respond generously when given the opportunity.

We find that brief meetings for all employees are helpful where the subject is of general concern. For specific information necessary to only part of our organization we find sectional or department meetings ideal. Never end a meeting without sincerely asking if there are questions. Make your voice convincing — don't ask, to appease your conscience, in a manner that defies anyone to ask a question or to interrogate the speaker or instructor, or to examine the accuracy of a remark.

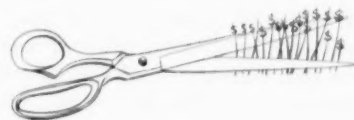
One of the most important subjects of instruction for employees should concern safety and yet how often safety is left to look after itself. The unfortunate part is that it rarely looks after itself and when ignored or denied has a way of embarrassing management by accidents that are so easily prevented.

Some months back there was a serious gas explosion in our headquarters city caused, undeniably, by propane gas. The property damage was very extensive and the resultant publicity was harmful to all L. P. gas retailers. The facts were these: A cylinder deliveryman was instructed to deliver a cylinder of gas to an address prior to the arrival of a new tenant. The house was unoccupied and the two cylinders on the property were empty. The workman installed a new cylinder, turned on the gas and left. Several hours later an electric refrigerator motor started and the resultant explosion completely demolished the house. Subsequent investigation disclosed that the range, sole gas appliance in the building,

was not connected and the gas line was completely open to the room. This was such a needless waste of property. Had this deliveryman received even the barest instruction he would have known better than to turn on gas to an installation that was out of gas when he could not gain entrance to the building. Barring even this rudimentary knowledge his ears should have told him that the immediate heavy flow of gas was uncommon. The unfavorable remaining item is that the insurance company which paid the claim of the house owner now has a subrogation case pending against the dealer's insurance carrier. They contend that the dealer was negligent and is responsible. Of course he is responsible. The dealer failed his employee and he failed his customer. Perhaps it is unnecessary to tell you that the prospective tenant of the house that was blown apart is now using electricity at another location; and it is perhaps equally unnecessary to tell you that several home owners in the immediate neighborhood cancelled their consumer agreements for L. P. gas with other companies in no way connected with this unfortunate accident.

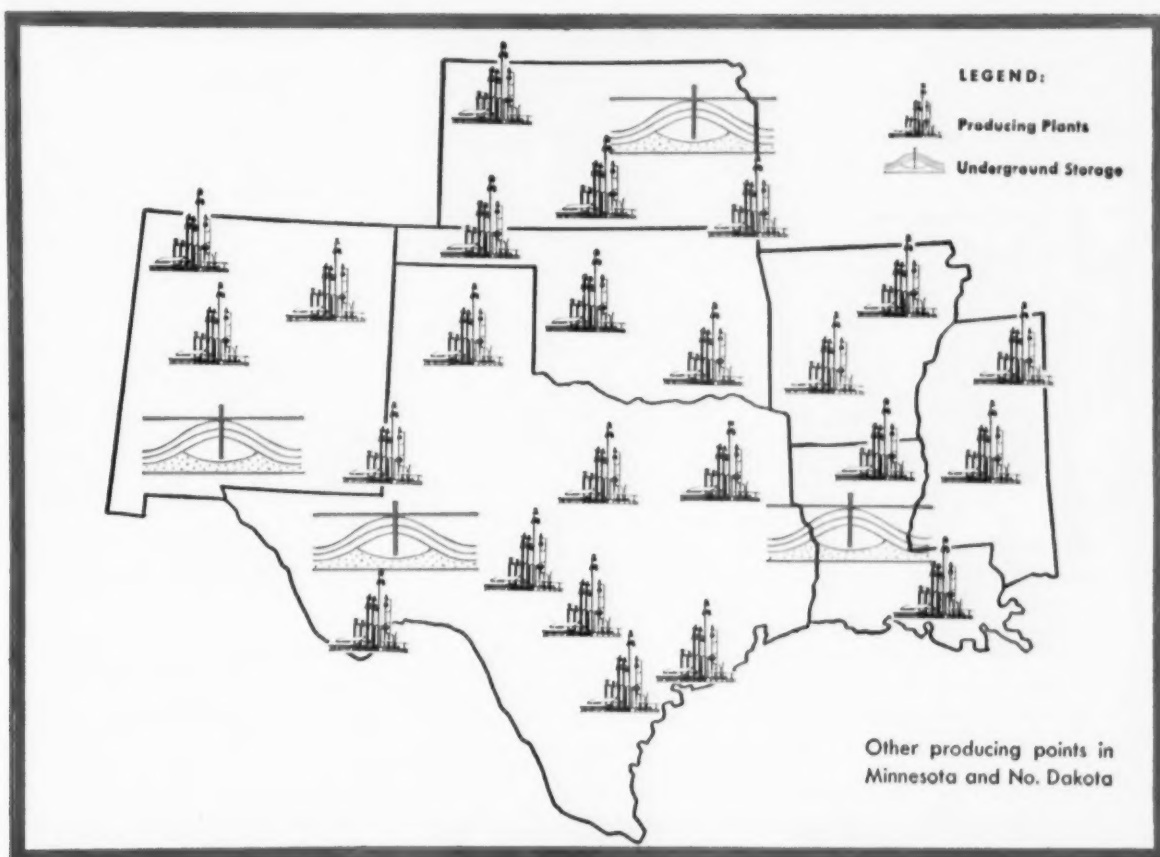
As to discharging our responsibility toward the matter of safety, we hold frequent and regular classes with our servicemen on this subject alone. At the time of its appearance we purchased for each male employee a copy of Carl Abell's recent book entitled "Safety is Everybody's Business." I recommend it highly and find its use as a textbook most advantageous.

Seriously consider, if you wish to discharge your responsibility to your employees, the value of special rewards in the form of cash bonus or other recognition for submitting ideas or programs that are worthwhile and usable.



3. Management's responsibility to stockholders or owners

The responsibility of management to stockholders or owners



**Let the
"safety spread"
of United's
LP-gas reserves
ASSURE
your fuel supply!**

Who but UNITED guarantees your peace of mind next winter with aboveground and underground storage reserves like this?

We spread our take from the gas fields across two dozen producing points in nine states to ASSURE our ability to deliver LP-gas on time, anywhere, no matter what!

Nobody but nobody beats UNITED's record! If super-dependability means anything to you at (brr!) below on a winter's night—try UNITED and breathe easy. We have more than a gallon stowed away in available reserve for every gallon of gas we contract.

UNITED controls the means of supply to you. One of the largest tankcar-transport fleets on wheels backs up our contract to ship your fuel. Quality standards and odorization control, of course—none finer. Our existence depends completely on keeping the bulk gas operator happy. That's you!

UNITED PETROLEUM GAS COMPANY

4820 Excelsior Blvd., Minneapolis 16, Minnesota

R. J. BELL
1628 Thompson Avenue
La Crosse, Wisconsin

ROBERT E. BOLKCOM
805 South Lincoln
Aberdeen, S. D.

ROBERT E. HAUGEN
901½ South Leland
Des Moines, Iowa

G. L. STEPHENS
McBirney Building
Tulsa, Oklahoma



S. R. NAVICKAS
1 West St. Albans Road
Minneapolis 16, Minnesota

W. A. STANGE
RFD No. 2, Box 337
Aurora, Illinois

HERB C. KOCH
4522 Haffner Drive
Fort Wayne, Indiana

JACK WORSHAM
Johnson News Agency Bldg.
300 E. Indiana, Midland, Tex.

should be pretty well established and clearly defined but this is not always the case. The larger corporations are required to furnish certain information to stockholders but most of this communication is restricted to annual reports. I have no comments on business conduct or record-keeping if yours is a corporation. Your board of directors will see to these items and will undoubtedly specify your responsibility.

If you are the owner, or represent the owners, then you at least owe it to yourself to operate your business for the greatest good. One very important part of this operation is the keeping of adequate records, records of such detailed nature that your banker can examine them and not have to ask any questions. Recently, an LPGA member was refused credit at his bank simply because his records were not in such detail as to permit the banker to make him a loan. This banker was not familiar with the L. P. gas business. This particular LPG dealer was then highly indignant toward this association because it had not publicized the L. P. gas business sufficiently for this banker to be aware of the industry. This buck passing isn't helping anyone. Don't be too ready to shift the burden of responsibility on to someone else. You may remember that the late Mayor of New York City, Fiorello H. LaGuardia, had a small sign on his desk which read, "the buck stops here." If nothing else is accomplished by this presentation, I would feel I had done a service to this industry if I could place a permanent mental sign in each person's brain saying "the buck stops here."

Our company handles this matter of record-keeping in a very satisfactory manner. Each month of the year we publish a complete operating report—not just a profit and loss statement but a complete report listing every phase of our operation. Thus we are equipped with a financial statement never more than 30 days old and adequate for the largest or smallest banker who may have use of it.

You also owe your stockholders and/or owners the satisfaction that comes from operating a dignified, reputable business whose ethics are on a par with any other industry.



4. Management's responsibility to the community

Whenever a business is started in or expanded to a new town, or when a change of owners or management occurs, the new person or persons are always quick to try to get established. They want to be well known for the advantage it may bring to their business. They join the country club, perhaps one of the service clubs, and anything else of a social nature that they think they can use. If you asked most of them whether or not this concluded their responsibility to the community, most of them would answer with an emphatic "yes." These things do not constitute responsibility to the community.

To maintain your responsibility to your community, it is necessary to conduct a place of business that your town or city can be proud of—and to take an active rather than a passive part in community affairs. Get to know your town or city officials, the superintendents and principals of your schools, the active persons in your religious groups of whatever denomination, the business leaders of your area. Make yourself and your business a living part of your community, giving as well as taking.

On a wall in our office is a plaque, recently received, which reads in part, "For outstanding citizenship. Presented to the Executives and Employees of Gas Inc." This award was given by the United Fund. When all of our people subscribed, as they usually do, we had no idea that the amount given or the fact that we were 100 per cent enrolled would entitle us to this award. We gave because we felt it to be our duty and because we are part of our city. We did not desire to shirk our responsibility to our community.

Whenever you are called upon by

any worthwhile organization, consider carefully before turning them down, especially if the group is made up of boys and/or girls. These are our citizens of tomorrow. These are our homemakers, our service and installation men and the ones to be classified as management. Don't pass the buck again to someone else. Don't "let George do it." You do it.



5. Management's responsibility to the L. P. gas industry

It's a shame that so many people in this industry feel that once they are established, successfully or not, they are on their own and they don't owe anyone in the L. P. gas business a thing, including a kind word. Oh for the power to penetrate some of these small minds. If some of the early founders of this business had taken this attitude, it would still be a small or a dead business. No one man can design, build or improve equipment, conduct experiments, make sales plans, obtain customers, write advertising, provide money, modernize appliances, or do all the many things necessary to put L. P. gas in usable form in your customer's home. If one man could do all this, wouldn't he be a lonely soul—there would be no one for him to exchange a single idea with—no one to answer a question of doubt or concern.

This industry, like so many others, is built on cooperation, exchange of ideas, and mutual trust. Unless these three things are understood and fostered, we cannot expect a very great future for our highly respected place in the growth of our country.

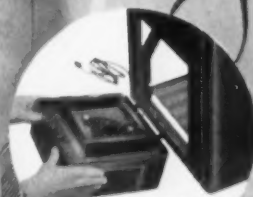
If yours is a large marketing firm retailing through a dealer organization, take your responsibility to these dealers seriously because their conduct is what makes or breaks public opinion—and public



Star Seller LP Gas Space Heaters



**ROYAL CONSTELLATION
SERIES VENTED GAS
CIRCULATOR HEATERS**
12 Models



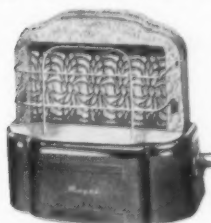
**FURNACE-TYPE
BLOWER** — Snaps in
firmly on left hand side,
discharges warm air at
floor level. Adjustable
louvres direct warm air
flow to right or left.

LOOK AT THESE ROYAL ALL-STAR FEATURES...

- ★ NEW! Die-formed combustion chamber eliminates noise
- ★ Famous Royal cast-iron Lifetime burners
- ★ Designer-styled *futurama* look
- ★ Coppertex baked-on enamel finish
- ★ Complete, priced-right line
- ★ ALL MODELS A. G. A. APPROVED



**ROYAL GAS
CIRCULATOR
HEATERS**
Unvented
7 Models



**RADIANT
HEATERS**
7 Models



**GAS
LOGS**
4 Models



**ROYAL COOL
CABINET GAS
CIRCULATOR
HEATERS**
Unvented
2 Models

FOR FREE CATALOG,
Mail us this ad and your letterhead



CHATTANOOGA ROYAL COMPANY
CHATTANOOGA 6, TENNESSEE
Since 1891

opinion can make or break you, no matter how large or how rich your company may be.

You owe it to yourself, as well as to your industry, to sell your product at a price that will allow and permit you to do the many things you should be doing to make this a good industry. In a recent issue of *Building Supply News* there was a very excellent cartoon. Two tramps were riding in a box car as uninvited guests of the railroad. One was saying to the other "I knew I was selling at cost but I thought the volume would take care of me." Some of the discount houses are now sorrowfully learning this lesson.

You owe it to the industry to take part in industry associations of which you may be a member. Don't just pay lip service to the thoughts expressed and the work performed by others. Any trade association can only be as good as you make it; and don't think, for one minute, that when you are a member of such trade associations that you can pass your responsibilities over and pass the buck further on.



6. Management's responsibility to political government

Earlier I mentioned illegal and improper installations. These installations are management's responsibility to political government, as well as to the consumer. Management not only has a responsibility to political government in conforming to present laws and regulations, but an equal responsibility to lend all aid to organized opposition to inequitable or harmful proposed legislation. The action taken by this association and some of its members against the recently proposed freight increases is an illustration. Again, too few carried the load.



7. Management's responsibility to competitors

Most of what has been said up to now could properly be included in management's responsibility to competitors, both within and without the industry.

First let us concern ourselves within the industry. It is your direct charge to aid and assist your fellow gas men in any proposition that will promote good for all gas men. The Gas Unity program sponsored jointly by AGA and LPGA is one case where you can not only help by giving support, but where you can reap benefits far in excess of your costs and efforts.

In our section of the country we did not wait for our two associations to pick up the ball for us—we started out, with little or no guidance, to sell an idea. We didn't expect to get paid for it or to reap any great benefits until the idea had started to pay off for all members. We formed the Merrimack Valley Gas Institute, made up of six utilities (100 per cent), 10 L. P. gas companies (about 20 per cent) and 17 manufacturers or manufacturer's representatives. Now just 14 months old, we have had a working program under way for nearly nine months. Plans for expanding other ideas are now being ironed out. This was a grass roots experiment and while not new, it has spread to other sections of the country. This, we feel, is a responsibility to our industry.

I would like to see the exchange of information increase between members of the gas industry. I think the exchange of credit information could be a starting point. Speaking of credit, I am reminded of a story popular with the late Albin Barkley. A storekeeper had been carrying a certain farmer for years and years, through lean periods and leaner ones. Finally, what with rising prices and subsidiza-

tion, the farmer was at long last able to pay off. The accommodating storekeeper did not see him again for some time but did learn of his many purchases from other dealers. Finally one day they met and the storekeeper remonstrated with his former customer. "Now that you are buying for cash, why can't I have some of your business? After all, I carried you along for years." "Goshamighty Tom, I didn't know you sold for cash!" I've seen some L. P. gas dealers like this.

I believe a change is due in the marketer-dealer relationship. We are great believers in sincerity and we do not understand how a retail dealer can split his beliefs and divide his sales talks when he is selling fuel other than gas along with gas. Our experience has proven to our satisfaction that dealers who sell gas and gas appliances only are far and away the best dealers. Their knowledge of gas is better, their service is infinitely superior and their loyalty is undivided. All of their efforts are directed to selling and servicing gas. They have no fuel oil deliveries to make, no grocery orders to put up, no paint to mix or glass to cut.

These gas dealers know precisely what it costs to do business—combination dealers apparently do not. I will wager that an impartial poll would verify that consumers have greater faith in the gas expert and their opinion of gas dealers is higher than it is of combination dealers. Remember, if you will, what public opinion can do for any business.

In spite of wishful thinking, we have a responsibility to our competitors outside our industry. We have a responsibility to be fair and truthful in our dealings and in pressing our claims. We also have the responsibility to bat our competitors' ears off when he lies or conveniently misdirects the facts when talking about our product.

We have the responsibility of showing our competitor outside this industry that we are alert, industrious, progressive, and ready to take our place on the merits of our product. We must make him realize that we don't frighten easily, that we are united in our efforts and that we are really Partners in Progress. ■

Now! American® W-45-LPG Welded Steelcase Meters for LP-Gas Service

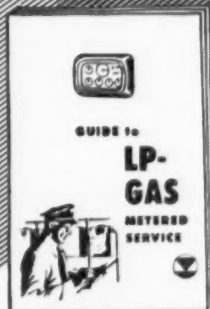
American's entirely new series of Welded Steelcase Meters now brings to the industry an entirely new approach to the measurement of LP-Gas.

The new W-45 incorporates hardcase-size, removable indexes for easy meter reading without clouding or discoloration of the index cover... isolated from pressure with a gas-tight, frictionless rubber grommet seal. Molded, one-piece lucite index box ends glass breakage problems.

Designed and built to provide traditional American accuracy and dependability, the new steelcase meters incorporate these additional field-proven features:

- Sturdy, light weight, welded steelcase construction.
- Removable "handhole" cover for easy meter accessibility—eliminates soldering.
- New lifetime corrosion protective coating.
- Wall mounting brackets for ease of installation.
- Accurate pilot light registration.
- Interchangeable straight reading or pointer-type indexes.
- Molded Duramic diaphragms and reinforced flag rods.
- Synthetic grommet-type internal seals for positive leak protection and minimum friction.
- Oil impregnated, porous bronze bushings.
- Modern styling assures ready customer acceptance.

MODEL W-45-LPG Rated capacity 45 cfh propane at 1/2 inch w.c. differential—5 psi working pressure—1/2 inch F.P.T. connections—shipping weight 8 lbs. F.O.B. Philadelphia.



BUILD SALES AND PROFITS FASTER WITH LP-GAS METERED SERVICE

Metered service has been vital to the success of many of the nation's leading LP-Gas distributors. Write today and find out how you can benefit from metered service and build customer confidence with LP-Gas meters. Ask for American's booklet "Guide to LP-Gas Metered Service," or consult your American Meter representative.

AMERICAN®
METER COMPANY
(INCORPORATED (ESTABLISHED 1836))



GENERAL SALES OFFICE: Philadelphia 16, Penna.
Albany • Allentown • Allentown • Baltimore • Birmingham
Boston • Chicago • Dallas • Denver • Erie • Houston
Kansas City • Los Angeles • Minneapolis • New York
Omaha • Pittsburgh • San Francisco • Seattle • Tulsa • Wynnewood
IN CANADA: Canadian Meter Company, Ltd., Milton, Ontario
Calgary • Edmonton • Regina

SUPPLIERS TO THE GAS INDUSTRY: Air (vacuum), Tinned, Steelcase, Aluminumcase and Welded Steelcase Meters • American-Westcott Orifice Meters • Instruments • Pressure Regulators • Apparatus • Valves

YOU CAN WIN \$25 . . . \$15 . . . or \$10

JUST TELL US, in about 500 words, how you use magazine articles to help you sell LPG installations, conversions or appliances.

IN JANUARY OF THIS YEAR, BUTANE-PROPANE News told you how you could use magazine articles to increase your sales and profits. For many years we have published articles helpful in making sales. We have now developed a special type of article that is even more helpful.

NOW WE WANT TO KNOW how well these articles are working. Have you been making use of them? How have you been doing it? What have the results been? Will you take a few minutes to tell us and your fellow LPG dealers about it while making a few extra dollars for yourself?

HERE'S ALL YOU HAVE TO DO! Write down your experiences in using magazine articles to help you sell. Tell how you use them and what results your methods have had. Give one or more actual experiences. Use about 500 words. Then send the information to Sales Builder Contest, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

OUR EDITORS WILL JUDGE the letters and select what we consider to be the three best. The writers will receive cash awards of \$25 for 1st place, \$15 for 2nd place, and \$10 for 3rd place. The winning letters will be published under the writer's name in our feature section.

Deadline for mailing entries: August 31, 1957



You can PULL OUT of the RED with



Economy Payloader LPG Transports



From Refinery to Bulk Storage Plant you make
PROFIT-HAULS with *Economy* Blimp or Step-down Transports

The operator who demands only the finest can be sure of *profitable* performance from any of the new series, *Economy* Payloader Transports. Built of lightweight, highest tensile steel obtainable (85,000 or 105,000 psi), these new Payloaders give you bigger profit-hauls. You'll like the new Payloader's perfect balance and roadability. What's more, you'll like the *new low prices*! Yes, you can pull out of the red with *Economy* LPG Equipment! Write, phone or wire for details.

Economy FEATURES

1. Engineered and designed for perfect load distribution to comply with existing State laws.
2. Latest ASME code and ICC construction.
3. 250-lbs. per square inch working pressure, X-ray (Perfect Weld) and Stress Relieved for Max-Payloaders.
4. Highest tensile steel obtainable (85,000 or 105,000 psi).
5. Relief valves recessed for maximum safety.
6. Rotary Gauge thermo-well recessed.
7. Newest model Reyco lightweight Tandem Unit with air or vacuum brakes.
8. Strong, equally spaced baffles to prevent surging of load.
9. ICC vapor proof lighting, standard color code wiring in copper tube and conduit.
10. Two coats of white enamel over primer... a beautiful finish.

Prompt Delivery — Most Items In Stock

**BE SURE TO GET
OUR NEW LOW PRICES!**



**FINANCING AVAILABLE
FOR APPROVED DEALERS**

DALLAS TANK COMPANY, Inc.

Quality tanks for a quarter of a century

201-5 WEST COMMERCE ST., DALLAS, TEXAS

Phone Riverside 5001

• 409 LEE ST., VICKSBURG, MISSISSIPPI

Phone 2971



LPGA load balancing committee, (left to right) D. W. Reber and Med Serif, *LP-Gas Magazine*, New York; T. C. Ryce, Parlett Gas Co., Waldorf, Md.; A. L. Beck, Tuloma Gas Products, Tulsa, Okla.; C. F. Butterworth, Acme Carburetion, Mankato, Minn.; W. R. Lund, Warren Petroleum Corp., Tulsa, Okla.; P. Fannin, Suburban Gas Service, Upland, Calif.; E. W. Schrage, chairman, Thermogas Co., Allison, Iowa; M. M. Romanek, LPGA, Chicago; R. E. Barnes, American Liquid Gas Corp., Los Angeles; J. W. Hardie, Home Gas & Appliance Co., Tucson, Ariz.; G. Haas, Rapid-Thermogas Co., Des Moines, Iowa; R. Meisenbach, J. B. Beaird Co., Shreveport, La.; R. Strawn Jr., Agricultural Equipment Corp., LaJunta, Colo.; and Carl Abel, *BUTANE-PROPANE News*, Los Angeles.

LPGA load balancing division shifts into gear in Chicago

THE load balancing division of the marketers section of LPGA got off to a flying start at a meeting held during the annual convention May 14. Represented among the 15 who attended the session were LPG producers, marketers, equipment manufacturers, and the industry press.

Much of the meeting time was devoted to ways and means to promote the development and dissemination of accurate information on various agricultural uses of LPG through the agricultural agencies operated by government—federal, state, and county. It was pointed out that a great many farmers are reluctant to take up new and unproved farming practices, and that the quickest way to speed up their acceptance is through the farm advisor and extension services.

The electric and chemical industries have already made great strides through their work with the experiment stations and the above named services. Our industry has great need for more and better experimental and test work by the stations and colleges.

Several members of the group reported very favorable results from their personal contacts and

work with the colleges and experiment stations. It was emphasized that it is desirable to supply test equipment as well as guidance in its use. LPG weed control equipment might be turned over for testing to a man who is quite familiar with chemical control, but knows nothing at all about the use of flame. With neither knowledge or guidance in the use of the LPG equipment, his results might be much less favorable than those shown regularly by the factory representatives or dealers who have learned how to use the equipment.

A survey had been conducted prior to the meeting to determine which agricultural colleges had done work on LPG research, and what publications had been is-

sued. There is a limited amount of this material, some of which is out of date and even out of print. Several of these colleges indicated willingness to work with our industry on special research. There was a general tendency to request financial aid, either as funds to help conduct special tests, or as grants or scholarships to support advanced or graduate students in the conduct of research projects of benefit to our industry. A special subcommittee will be appointed to work on such matters.

A program to assemble available published information and to provide a bibliography of pertinent material was outlined. The two editors of industry magazines who were present offered to work up and supply lists of articles on load balancing subjects which had appeared in their publications. (The *BUTANE-PROPANE News* list will be published in the September issue.)

Additional subjects discussed included the method by which a farmer can be reimbursed by the government for a portion of his weed control costs, the current status of gas air conditioning, and the current rapid spread of crop drying with gas heat. ■

Regular readers will recall that the load balancing division of LPGA grew out of industry interest spurred by an editorial in the February 1955 issue of *BUTANE-PROPANE News*. We are pleased to report that it is now functioning.

Texaco LP-Gas

Wins Immediate Acceptance

Keen distributors, who have signed up, already are finding Texaco LP-Gas has immediate acceptance.

This is not surprising since this product bears the famous nationally known Texaco trade-mark and matches the quality of such

other well-known Texaco products as Sky Chief gasoline, Havoline Motor Oil, Marfak, etc.

Texaco LP-Gas is produced in 25 strategically located areas and is delivered in a brand new fleet of tank cars.



Distributor Benefits

Thus, distributors are assured of:

1. A product of highest quality.
2. Dependable supplies, for Texaco is one of the largest producers of LP-Gas.
3. Efficient delivery service.
4. Sound sales policies that mean worth-while profit.

A few areas are still open for representation. If you are interested, write for details of Texaco's special deal for distributors.



The Texas Company, LPG Sales Division, P. O. Box 2420, Philtower Building, Tulsa 2, Oklahoma, DIamond 3-4101.—929 South Broadway, Los Angeles 15, California, TRinity 9271.



news



Gas Unity progress seen at Salt Lake City meet

Gas industry unity is the "forward look in public relations," 65 utility, pipeline, and L.P. gas representatives agreed during a two-day PR workshop in Salt Lake City, May 28-29. The meeting was jointly sponsored by the Pacific Coast Gas Association and the American Gas Association.

Discussion leaders, headed by Chairman James D. MacFarland, director of PR, Southern Counties Gas Co. of California, urged the industry to unite on two big jobs. The first job is to make gas available everywhere, and the second, to present the true facts about gas everywhere.

Slow but steady progress in gas unity was revealed during a panel discussion headed by moderator W. R. Sidenfaden, Suburban Gas Service, Upland, Calif.; Jack H. Mikula, Milwaukee Gas Light Co., chairman of the Gas Unity Com-

mittee; B. Marshall Willis, El Paso Natural Gas Co.; Howard D. White, LPGA; and William J. Bailey, Day & Night Manufacturing Co., Monrovia, Calif. Mr. Sidenfaden pointed to the fact that one out of every five gas customers uses L. P. gas.

J. Wilson Gaw, Washington Natural Gas Co., Seattle, moderated a panel on "Investor vs. Municipal Ownership of Gas," along with James J. Diesing, Kansas-Nebraska Natural Gas Co., and Frank C. Sullivan, Southern California Gas Co.

It is not enough to do a good job, this group concluded. In addition, the gas company must at every opportunity identify itself with private enterprise, or promoters looking for a quick profit will take over.

Panel members saw a tremendous need for gas companies to do a better telling job in their own communities and to show the public what municipal ownership would cost them. The local manager is the key man in developing good community relations, they agreed.

Walter C. Prill, Southern Counties Gas Co. of California, moderated a discussion of "Public Information Activities to Promote Acceptance of Gas as a Safe Fuel." This was featured by the company's dramatic demonstration of

the "Properties of Natural Gas" which has been presented to fire and police departments throughout the country.

Mr. Gaw was elected chairman of the next PR workshop in the western region and Mr. Willis was elected vice chairman. The workshop program is part of the PAR Public Information Program of AGA.

First Esso LPG storage well now in service

The first well of Esso Standard Oil Co.'s 5-well underground storage project at Sorrento, La., went into service July 1. This well (W-3) is used for butane storage.

The project includes five cavities in a salt dome formation and furnishes storage capacity of approximately 1.1 million bbl. of butane, propane, ethylene and propylene.

The pipelines and storage facilities are being operated by Interstate Oil Pipe Line Co.

S & R Gas Co. drivers set a safety record

Four employees of the Natchitoches, La., branch of S & R Gas Co. were recently honored when the company owner, F. J. Roberson, presented them with gold tie clasps in recognition for long, safe driving records. A total of 39 driver-years without an accident was divided as follows between the four men—D. B. Nation, 11 years; C. C. Osborn, 10 years; James Berry and Boyd Rains, 9 years each. (This also looks like something of a record for low turnover of help.)

The company capitalized on this unusual safety record in a two-column, 11 in. advertisement calling public attention to the safe, reliable service.

Ruud Institute holds "field" school for reps.

For the first time in its history, the Ruud Institute of Commercial Gas Water Heater Engineering recently held a "field" school for L. P. gas representatives and other utility and public health personnel.

Miami, Fla., was the scene of this L. P. gas school—identical to more than 20 others attended in recent months at the Ruud Manufacturing Co., Kalamazoo, Mich., by approximately 400 L. P. gas and

Gas industry unity panel at AGA-PCGA public relations workshop in Salt Lake City: (left to right) B. Marshall Willis, El Paso Natural Gas Co.; Howard D. White, LPGA; William J. Bailey, Day & Night Manufacturing Co., Monrovia, Calif.; W. R. Sidenfaden, Suburban Gas Service, Upland, Calif., moderator; and Jack H. Mikula, chairman, Gas Unity Committee.



**It's easier to sell
when it is obviously better!**

Demonstrate

Dearborn®

GAS AREA HEATERS

with

**FORWARD-FLOW
CIRCULATION**



There is more profit in quality . . . when it sells itself.

These five easily demonstrated points of quality (and the consumer benefits connected with each) have helped Dearborn dealers sell over 2,000,000 heaters . . . more than any other make. By selling quality, they have gotten both more profit and a satisfied customer on each sale.

Let Dearborn quality help sell itself. Demonstrate a connected Dearborn on the sales floor. Get your share of quicker sales, better profits — show your customers why . . .

Only a Dearborn® will do!

Home filling warmth is a benefit any buyer wants. Dearborn Forward-Flow Circulation assures it. Patented baffle and louver construction forces warm air *out* into the rooms — where it circulates in the living area and is *not* wasted on heating the ceilings. This Forward-Flow Circulation also prevents wall and ceiling smudge — another sales appeal that is hard to beat.

Other Dearborn "Sells Itself" points of quality:

FEATURE: Cool Safety Cabinet. Patented Sifonaire chassis keeps hot air at heart of the heater; cool air, next to its walls.

BENEFITS: Safety, especially with children. Convenience in placing heater near walls, curtains; and use of cabinet top.

FEATURE: Glo-Brite Radiants. Engineered to provide more radiant heat. Cherry red from top to bottom, they radiate sun-like heat throughout the entire room. Designed for long life.

BENEFITS: Penetrating infra-red heat that warms you quickly without overheating the room.

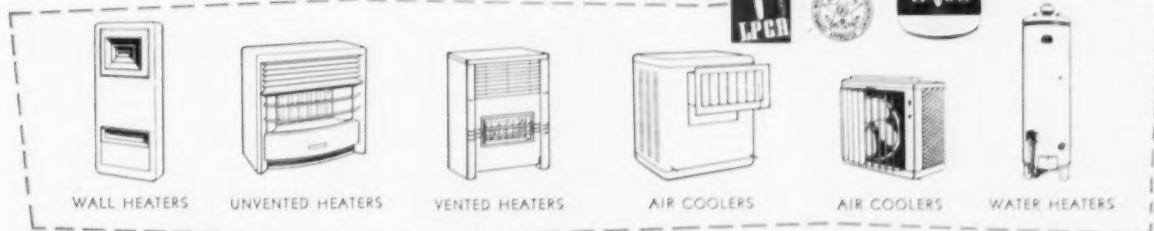
FEATURE: High-Crown Burners. Big — four rows. Rows raised on an arched surface for air circulation — complete combustion.

BENEFITS: Efficient heat — no waste. Clean blue flame.

FEATURE: Styling. Clean, simple lines; modern harmonizing finish.

BENEFITS: Good heat . . . good looks, too.

DEARBORN STOVE COMPANY
1700 WEST COMMERCE • DALLAS, TEXAS



WALL HEATERS

UNVENTED HEATERS

VENTED HEATERS

AIR COOLERS

AIR COOLERS

WATER HEATERS



A typical classroom scene at the first L. P. gas "field" school of the Ruud Institute of Commercial Gas Water Heating. The three-day school was similar to more than 20 that have been held at Ruud's headquarters office and plant in Kalamazoo, Mich.

city gas as well as plumber retailer and wholesaler representatives.

The sessions were designed to train Miami area L. P. gas and other personnel in correct specifications and installation of commercial gas water heaters.

Attending were L. P. gas representatives from Jacksonville Gas Corp., Florida Public Utilities, Peoples Water & Gas Co., the Tampa Gas Co., and the Gas Oil Products Co., all of Miami, as well as Green's Fuel of Florida Corp., Sarasota.

In addition, 22 of the 28 inspectors of the Dade County Health Department attended the three-day school.

All types of commercial gas water heaters were gas—and water—connected for student participation in experiments. There were line demonstrations of typical hot water demands. Waters and gases were studied, with special emphasis on cost. Common service problems and their solutions were also reviewed.

R. N. Spear, Ruud commercial sales manager, was in charge of all classroom sessions. Assisting Mr. Spear were A. L. Rothrum, Ruud district manager, Jacksonville, Fla., and William R. Seith, Ruud south Florida representative.

In addition to the Miami school, another Institute course was held in Tampa. L. P. gas personnel from Tamgas division of the Tampa Gas Co. attended this meeting, including William Bennett, the firm's commercial manager; three commercial representatives; Marlon Gabel, Tampa sales manager;

Mark Brown, Tampa service superintendent; and many other representatives of the company. Also in attendance were representatives of a leading restaurant supply organization, and others from plumbing, engineering and public health fields.

Term "hydronics" used for uses of controlled water

Taking note of the tremendous growth of the science of heating and cooling with water, the Institute of Boiler & Radiator Manufacturers proposed recently that a new name, *hydronics*, be adopted by the industry.

Introduced by Edward F. Ford, chairman of an IBR committee, at the group's annual meeting, hydronics was described by the speaker as one that more clearly identifies the multitude of uses of controlled water for heating and cooling.

Hydronics was offered by the committee after consultation with a number of engineers, manufacturers, and even language specialists with the view to creating a word that was technically reflective of the role of the industry, yet pleasant sounding and easy to remember.

Members of the committee along with Mr. Ford, national accounts manager, Bell & Gossett Co., are Robert W. Lear, general marketing manager, plumbing and heating division, American-Standard; and Wilfred A. Burbine, director of heating sales, Crane Co.

Calor Gas transport has 9100 gal. net capacity

One of the largest capacity LPG motor transport outfits ever produced has been placed in service by Calor Gas Co., San Francisco. It

has a net capacity of 9100 gal. of liquid gas. Many lightweight construction features have been incorporated to increase the payload and still stay within the legal load limits.

Use of high strength steel alloy for the construction of the tanks is an important feature of weight saving. Frameless design of the special Fruehauf trailer is another. High strength aluminum alloy has been used wherever possible to lighten both the truck and trailer. The motive unit consists of a Peterbilt truck with Hall-Scott engine operating on propane.

Calor's method of operation, worked out on the basis of factual economics, employs trucks for deliveries up to 400 miles from the pick-up point. Rail cars are used for longer hauls.

May gas heat and range shipments down from 1956

GAMA reports that domestic gas range shipments in May totaled 157,200 units, 12.5 per cent fewer than May a year ago. Shipments of gas-fired equipment for residential central heating were also lower than a year earlier.

Edward R. Martin, GAMA director of marketing and statistics, announced that for free-standing ranges, the May shipments were 14.9 per cent lower than in the 1956 month. He pointed out, however, that part of the dip in free-standing ranges was offset by continued gains in built-ins. Built-ins showed a 17.8 per cent increase.

The five-month totals for both types of ranges was 815,100 units, 9.9 per cent below the 904,300 figure a year ago.

For gas-fired furnaces of the forced warm air and gravity types, May shipments were down 17.1 per cent. Shipment of gas-fired boilers represented an 8.2 per cent gain, and gas conversion burners, used in changing existing heating systems from other fuels to gas, accounted for 8300 units in May. This was a 30.8 per cent decline from the 12,000 total for the same month in 1956.

Trinity Steel formally opens new facilities

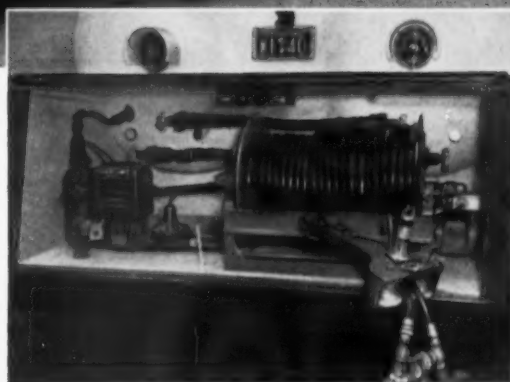
A special invitation was extended to members of the L. P. gas industry to visit Trinity Steel Co.'s new plant on official opening day in Dallas, July 9.

Mayor R. L. Thornton of Dallas



▲ Hackney deluxe unit with 2170-gal. water capacity (pay load: 1795 gal. propane), full skirting and all cabinets. Other sizes available, equipped with or without side or rear cabinets.

▶ Rear operating compartment. All controls accessible from one position. Rear delivery minimizes truck maneuvering... dragging hose around truck in busy areas.



Hackney Tank Trucks

... double-barreled for better stability... bigger pay loads

Looking for a way to speed up your LP-Gas delivery? Cover more territory? Serve more customers? Then see how Hackney builds tank trucks for profit-making operation.

Twin-barrel tanks utilize full truck width, distribute weight for real stability. Built in accordance with ICC specs and the ASME Code (for 250 lb. pressure), Hackney trucks are ideal for out-of-state delivery.

Hackney gives you all the features you need for fast delivery:

- Centrally located controls.
- ICC lighting with clamp-on connectors.
- Blow valve for easy strainer cleaning.
- Internal safety valve.
- Easily dismantled for service.
- Pressure gauge at pump discharge.
- Entire unit easily transferred to new chassis.

Write for details.



Pressed Steel Tank Company

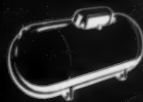
Manufacturer of Hackney Products

1487 South 66th Street, Milwaukee 14, Wisconsin

Branch offices in principal cities



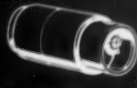
cylinders



systems



fuel tanks for trucks and tractors



lift truck tanks



tank trucks



bulk storage tanks

LP-GAS CONTAINERS FROM ONE POUND TO 30,000 GALLONS



This aerial view of 15-acre location of Trinity Steel Co. shows the main offices in foreground, 65,000 sq ft. plant in background and maintenance garage.

cut the steel ribbon at 10:00 a.m. and festivities continued throughout the day. Located at 4001 Irving Blvd., the new facilities are among the most modern and advanced of any similar operations. The new location sprawls over 15 acres in the heart of Dallas' industrial Trinity river district and features: main offices in a modern air-conditioned building; a huge maintenance garage to service the fleet of 23 new tractor and trailer units; and the main plant, with over 65,000 sq ft. under one roof.

Trinity conducted tours of the plant throughout the day and served refreshments.

Pure Gas in extensive expansion program

An extensive expansion program of his company for the coming year is announced by Talmage Lovelady, president of Pure Gas Service Co. of Worland, Wyo., and recently-elected president of the LPGA.

The company last year completed its expansion into Douglas, Wyo., and has recently established its eighth outlet in Jackson, Wyo. Later in the year, Pure Gas expects to put its ninth store in the Pinedale-Big Piney region.

The addition of three new outlets together with an expansion of sales in the older territories, has necessitated an expanded force in the general offices in Worland, Mr. Lovelady reports.

Latest addition to the staff is Robert W. Shively, who became director of public relations and sales promotion on July 1.

Pure Gas Service Co., since its

organization in 1950, has grown to become the largest distributors of L. P. gas in Wyoming, serving the Big Horn and Wind River Basins in northwestern Wyoming. The Douglas store has introduced Pure Gas to central Wyoming and the Jackson and Pinedale stores will extend the company's trade area to the extreme western edge of the state.

National Council offers new dealer sales aid

Another new dealer sales aid to help marketer members of the National LP-Gas Council cash in on the Council's consumer advertising has been announced by Frank Carpenter, United Petroleum Gas Co. and chairman of the Council's dealer sales aid committee.

A 20 x 40 in. blowup of a Council ad in *Better Homes & Gardens* magazine has been mailed to all marketer members. The blowup, in color for store display, identifies Council members with Council advertising in the top home magazine in the U. S. "As Seen in *Better Homes & Gardens*" appears in large type across the magazine-cover-type display piece to aid marketers in merchandising the Council's advertising.

Each marketer member of the Council received one of the king-size display pieces at no charge. Additional copies can be secured for 25 cents each from the National LP-Gas Council.

Laundry factory sales up three per cent from April

Domestic factory sales of home laundry appliances during May 1957 were up 3 per cent from April, Guenther Baumgart, executive director of AHLMA announced recently.

May sales, and cumulative sales for the first five months of 1957, were both down 20 per cent from the corresponding 1956 May and five-month periods.

Total washer sales for May amounted to 254,195 units, 10 per cent greater than during April, although 19 per cent down from a year ago.

Total dryer sales for May were 31,572 units, 26 per cent below April, and 43 per cent below May a year ago. Electric dryer sales for the month were down 25 per cent from April, and 49 per cent below a year ago. Gas units were down 28 per cent from both April, and from May, 1956.

Robertshaw builds new western research center

Ground breaking ceremonies were held at Anaheim, Calif., recently preliminary to immediate construction of a \$250,000 western research center by Robertshaw-Fulton Controls Co.

The new center will carry on basic and applied research in the fields of automatic controls for air conditioning, home heating, domestic and commercial water heating, cooking, food preservation and home laundering appliances.

The five-acre site for the new facility faces on the Santa Ana Freeway, near Harbor Blvd. It will have 15,000 sq ft of floor space.



More than 100 employees were honored recently with award dinners where gold service emblems were presented to commemorate five-year service anniversaries with the J. B. Beard Co. Inc. Ed Bartles, who has been a plant supervisor at Beard since he joined the company 35 years ago, received his diamond studded service emblem from C. N. Wibker, former vice president who retired a few months ago after 32 years of service. Looking on is J. Pat Beard, president, who received his 25-year pin at the dinner.

NEW MOTOROLA T-POWER[®] 2-WAY RADIO

Transistorized Power Supply
for both receiver and
25-watt transmitter



Long Life Transistors Replace the Vibrator . . . Reduce Maintenance and "Down-Time"

Already famous for the lowest maintenance and operating costs in the 2-way mobile radio field, Motorola mobile radio is an even better investment now—with the T-POWER unit. The vibrator is gone! . . . replaced by rugged long-life transistors. Gone, too, is the problem of frequent vibrator replacement. Here is a mobile radio with an all-electronic power supply.

New Mounting Flexibility with Plug-In Control Head . . . Same Basic Unit can be Used for Front or Trunk Mounting

With the T-POWER radio, you are no longer restricted to one type of mounting. Install the complete radio, with drawer unit and plug-in control head, for under-dash mounting. For rear mounting the same basic drawer unit can be installed in the trunk and connected by cable to a dash-mounted control head. And—the same basic drawer unit can be interchanged with the equivalent Motorola Twin-V trunk mount radio models operated from a 12-volt negative ground source.

T-POWER radio is another example of Motorola's continuing leadership in the practical application of transistors in mobile radio. Other tested and proved transistorized products include the Dynamic Microphone and Power Voice Speaker.

Get all the facts.—Write now for literature with complete information.

MOTOROLA Communications & Electronics, Inc. • 4501 Augusta Blvd., Chicago 51, Illinois • A Subsidiary of Motorola Inc.

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Presents the

UNI-PAC

A new design in Multiple Purpose Valves . . .



SERIES 2000
For 1 1/2" tank opening
FILLING CAPACITY:
42.3 GPM @
10 lb. diff.
LIQUID WITHDRAWAL
29 GPM

SEE

Your local
SEL-PAC representative

Here is the Sel-Pac way of combining in one body its high capacity filler valve with back check and excess flow check, vapor return valve, service valve and fixed liquid level gauge. Pressure gauge and provision for 3/4" liquid withdrawal optional. Request specifications and prices today.

Selwyn Pacific Company

340 West Avenue 26, Los Angeles 31, Calif.



(Advertisement)

PENNY WISE AND POUND FOOLISH



by
**GEORGE R.
POSTLEWAIT**
President
SELWYN-PACIFIC
COMPANY

Do you really know the product you are selling—its characteristics—idiosyncracies—deceptions? There are certain basic fundamentals which will cost you hard-earned dollars if you ignore them, whether you wish to admit it or not.

PENNY WISE: The day is cold so, "I won't bother to purge the air out of the new tank on this installation."

POUNDS FOOLISH: (1) The pump had to develop pressures as much as 100 pounds higher to compress the air. (2) The compressed air dropped its moisture, which later caused "freeze-ups". (3) A "service call back" was necessary to properly adjust burners, as first fuel drawn off was not a true 2500 B.T.U. fuel, due to compressed air in tank or cylinder. (Mixture got richer as air was drawn off.) (4) Weather warmed up, increased pressure due to compressed air, caused relief valve "to pop"—fuel loss—customer dissatisfaction.

PENNY WISE: "I guess ½ in. tubing will do that job."

POUNDS FOOLISH: (1) Line too small causes pressure drop, resulting in inefficient operation. (2) Pilot light outage. (3) Inability to add additional appliances (profit makers) at future date.

PENNY WISE: "I will single stage this job and save the cost of a first stage regulator."

POUNDS FOOLISH: (1) The extra size line needed to prevent pressure drop would have paid cost of first stage regulator. (2) Pilot outages, due to pressure fluctuations, would have been eliminated. (3) Other appliances could have been added to high pressure line. (4) Service man turned down regulator adjusting spring to take care of pressure drop. Pressure going through meter was at 14 in. water column, instead of 11 in. The difference in B.T.U.'s of 11 in. and 14 in. pressure comes out of your profits. (The meter reads the same number of cubic feet in either case, which is the basis on which you are being paid.) (5) The freeze-up which occurred, resulting in the loss of a lot of chicks or ruined tobacco, etc., plus an expensive 10 or 15 mile trip and a dissatisfied or lost customer, would not have happened.

PENNY WISE: "I will use this small direct linkage, high pressure regulator."

POUNDS FOOLISH: (1) Capacity was insufficient and caused "humming". (2) Because of direct linkage, there was no lever action to keep lock-ups low. "High lock-up" permitted liquid to condense in line between the two regulators requiring service call and loss of fuel. (3) Water condensed in low inlet port of small regulator, causing freeze-up. (Large linkage type has straight through flow.)

Many more examples of false economy practices could be listed if space permitted.

ARE YOU A "PENNY WISE—POUNDS FOOLISH" OPERATOR?

SELWYN-PACIFIC COMPANY

340 West Avenue 26
Los Angeles 31, California

An unusual feature is that a contemporary modern home will be built immediately adjacent to the research facility for environmental testing of the appliance control devices developed there.

Thomas Jeffers, an assistant vice president of Robertshaw-Fulton, has been named general manager of the new center. He was formerly with the company's aeronautical division.

At present, Robertshaw maintains a research facility near the Los Angeles International Airport. This will be merged with the new western research center when construction is completed.

A. O. Smith exhibits at International Trade Fair

A 65-gal. deluxe Permaglas water heater was one of the American consumer products to be shown for the first time behind the iron curtain.

The showing, by the U. S. Department of Commerce International Affairs Division, was held at the 26th International Trade Fair in Poznan, Poland, June 9-23, according to H. C. McClellan, assistant secretary of Commerce for International Affairs.

The water heater, manufactured by the Permaglas division of A. O. Smith Corp., Kankakee, Ill., was housed in the U. S. central exhibit which emphasized individuals and family living.

Australia firm to make Fisher equipment

K. R. D. Wolfe, vice president of special controls division of Fisher Governor Co., Marshalltown, Iowa, has announced completion of a licensing agreement permitting C. C. Engineering Industries, Ltd., Sydney, Australia, to manufacture

Fisher L. P. gas regulators and equipment in that country.

Officials of the Australian company who were in Marshalltown recently conferring on the agreement were: N. F. Lillycrop, director and general manager; Geoffrey C. Bastow, associate director and general sales manager, and Joub Bourke, executive engineer.

Great Northern buys Bibby's Pacific Propane

Great Northern Gas Utilities Ltd. of Edmonton has purchased Bibby's Pacific Propane Ltd. of British Columbia. The Bibby distribution plants are in south Westminister, Penticton, Vernon, Kamloops, Terrace and on Vancouver Island at Nanaimo.

The acquired properties are in areas in which Great Northern's B. C. subsidiary, Rockgas Propane, does not have plants. As a result, a better service and market coverage will be achieved.

Great Northern also is inaugurating propane service in the Brandon area, Manitoba, where distribution of natural gas is expected later this year.

Algas equips 2 engines for operation on 3 fuels

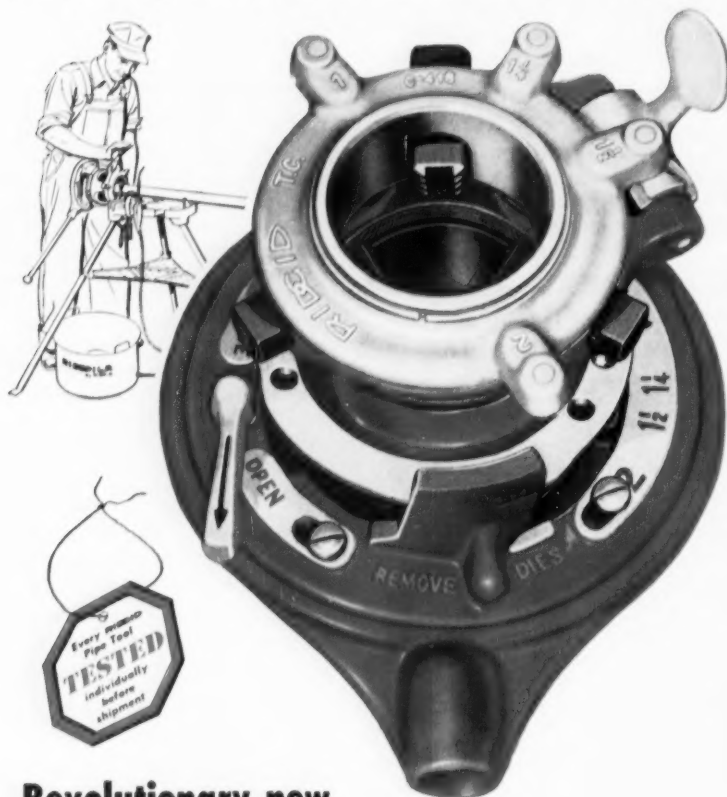
On the island of Tierra del Fuego off the southernmost tip of the country of Chile, the Empresa Nacional del Petroleo, Chile's exclusive petroleum company is produc-

Discussing foreign markets are these Weatherhead Co. foreign representatives (left to right) Carl Bacon, manager, Latin America operations; Antonio Temprano, Havana, Cuba; Charles P. Kelsey, Weatherhead export manager; Manuel Salares, Havana; and B. B. Getchman, Weatherhead representative for South America.



RIDGID Jamproof 65R

**Now Guarantees
Straight Threads Every Time**



Revolutionary new TC (True-Centering) Workholder centers all pipe, even over or under size

No more crooked threads! 65R pre-sets to size by turn of TC workholder gauge ring—tightens by palm-of-hand push on forged cam lever. All 3 jaws close together on pipe by one mechanical action.

Straight threads, drip threads if desired, jamproof, 1" to 2" with 1 set of dies, fast size change—only 65R offers you so much for your money. Buy it at your Supply House.

P. S. The new TC workholder fits your present 65R!

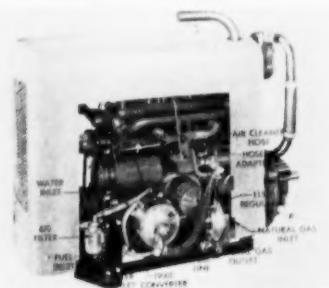
The Ridge Tool Company, Elyria, Ohio, U. S. A.



ing 12,000 bbl. of crude oil per day.

In its expanding operation, this country required two industrial engines to operate water pumps at various locations. Because of the availability of natural gas in some places and propane in others, it was desired to operate these engines on either of these two fuels as well as gasoline in order to conserve the use of gasoline wherever possible.

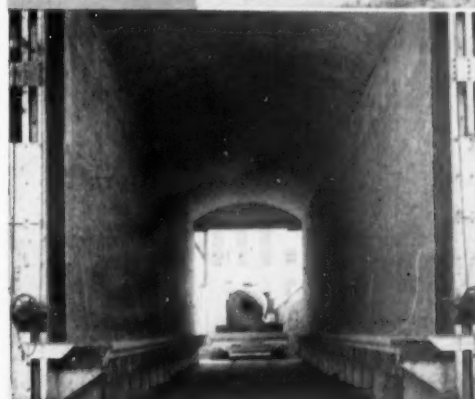
The order for the engines was received by the Tractor Equipment & Engine Co. of Los Angeles who supplied two 4-cylinder, 134 cu in. Ford industrial engines. The company requested American Liquid Gas Corp., Los Angeles, to make a 3-way conversion that would meet the customer's requirements. The accompanying photograph shows how this problem was solved with-



Three-way conversion of Ford industrial engine equipped by American Liquid Gas Corp. for shipment to Chile. Originally equipped with gasoline carburetion, conversion provides operation on either propane, natural gas or gasoline. This unusual application permits maximum flexibility for portable field operation. Engine will be used for operating portable water pumps.

out making any changes whatever in the engines.

Normally designed for gasoline operation, these Ford engines have been equipped with an Algas hose adapter, a converter, and a filter for the liquid propane system and an atmospheric regulator for the natural gas system. As the engine is shown in the photo, it is equipped for L. P. gas operation. By changing the hose adapter fuel hose from the propane converter to the atmospheric regulator (as indicated by the dotted lines) the system will operate on natural gas. Operation on all three systems is controlled by manual valves in the fuel lines. Thus by shutting off both the propane and natural gas supply, the engine may be operated on gasoline.



Stress-Relieving Furnace



Fabricating Bay — Tulsa Plant



St. Louis Warehouse

A SINGLE source to supply your LPG plants, tanks and equipment.

ANCO'S largest stocking warehouses combined with FLINT'S manufacturing facilities match LPG Equipment to customer needs.

FLINT STORAGE TANKS • FLINT DOMESTIC SYSTEMS • ANCO IIC "Pig" CYLINDERS • PREFABRICATED BULK PLANT AREAS: and Hose, Couplings, Compressors, Pumps, Unloading Risers, Loading Risers, Rotary and Magnetron Gauges, and all types of Valves.

FLINT'S modern production-line fabricating plants located in Tulsa and Memphis contain more than 340,000 sq. ft. of working area. Combined with Anco's four conveniently located warehouses Anco offers equipment and services at competitive prices.

Now is the time to take advantage of ANCO Engineering facilities to modernize your present plant or to plan a new layout.

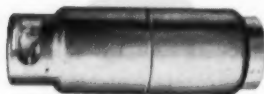
TWO GREAT NAMES IN LPG EQUIPMENT

ANCO Manufacturing & Supply Co.

Tulsa, Oklahoma • 21st at Union • LUther 4-6187
Memphis, Tenn. — 241 Industrial Ave. — WHitehall 6-1694
East St. Louis, Ill. — 6503 St. Clair Ave. (Hy. 50) — EXpress 7-0200
Des Moines, Ia. — 327 Insurance Exchange Bldg. — CHerry 4-5347

**LIFT
YOUR
PROFITS
with
WEATHERHEAD
LP-GAS
INDUSTRIAL
TRUCK
CYLINDERS**

**AVAILABLE NOW IN
THESE CAPACITIES**



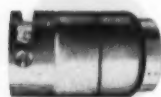
**No. 15002
43½ lb. Propane**



**No. 15001
33½ lb. Propane**



**No. 15000
20 lb. Propane**



**No. 15003
20 lb. Propane**

For further information contact your Weatherhead Representative or write:

THE WEATHERHEAD COMPANY • CLEVELAND 8, OHIO

The Weatherhead Co. of Canada, Ltd., St. Thomas, Ont., Canada

AMERICA'S **first** LINE OF LP-GAS EQUIPMENT

Export Division Cable Address WEATHCO

Specify
WEATHERHEAD



all the way!

You can cash in best on the hot industrial truck market with the complete Weatherhead line of LP-Gas industrial truck cylinders, valves and accessories. Check these facts:

- Owners of industrial trucks are now converting at an unprecedented rate.
- Manufacturers of industrial trucks are devoting a higher percentage than ever of their total production to LP-Gas powered units.
- Advantages of LP-Gas for trucks, busses, farm tractors are being exploited in nationwide promotions.
- Each industrial truck requires an average of 3 to 4 cylinders.

Weatherhead industrial truck cylinders are fitted with all necessary valves and gauges.

For full details ask for Weatherhead Industrial Truck Cylinders Bulletin IT-3093, today!



BPN

the trade

**J. B. Beaird promotes Finuf
to general manager of sales**

Melvin A. Finuf, who has been assistant general manager of sales since August 1946, has been promoted to general manager of sales at the J. B. Beaird Co. Inc., Shreveport, La., John L. Tullis, vice president of sales, has announced.

Mr. Finuf joined Beaird in 1935 in the pattern shop and served throughout the plant, moving up to plant engineer, superintendent of the machine shop, the forge plant, tank division sales manager, and assistant sales manager before his appointment as assistant general manager of sales in 1946.



E. B. Blackman
Corken's



M. A. Finuf
J. B. Beaird

**Blackman rejoins Corken's
as sales manager**

The appointment of E. B. Blackman, as sales manager, is announced by Charles M. Corken, president of Corken's Inc.

Mr. Blackman, a registered professional engineer, rejoins Corken's, having served as an engineer in the industrial pump division from 1949 to 1952.

For the past five years, Mr. Blackman has served as sales manager in the pump division of Carson Machine & Supply Co.

**Addy named purchasing agent
for John Wood division**

Meredith L. Addy has been named purchasing agent for John Wood Co., heater and tank divi-

sion. He will be responsible for all purchases necessary for operation of the division's principal plant and offices in Conshohocken, Pa., according to J. H. Gotwals, vice president and general manager of the division.

Mr. Addy joined John Wood in 1929, and was employed in the firm's Conshohocken plant prior to entering the purchasing department in 1931. Later he was made assistant purchasing agent to Joseph C. Henderson, who retired in 1957.



R. W. Wetjen
Neptune



M. L. Addy
John Wood

Neptune Meter Co. appoints Wetjen its sales manager

Russell W. Wetjen has been appointed sales manager for petroleum, L. P. gas, and industrial meters of the Neptune Meter Co., it is announced by Dante E. Broggi, president.

Mr. Wetjen succeeds Walter H. Sieger, who has been elected president of Revere Corp. of America, a Neptune subsidiary.

Mr. Wetjen joined Neptune in 1935. From that time until 1946, except for military service, he was employed in the engineering and research departments of Neptune's Long Island City plant. Since 1946 he has been president of Perfect Propane Gas Co., and Perfect Bottle Gas Co., Hawley, Pa. He is also a director of the Pennsylvania L. P. Gas Association.

Jorgensen elected to Rheem's board of directors recently

Earle M. Jorgensen of Los Angeles was elected a director of Rheem Manufacturing Co. at a meeting of directors held at the company's headquarters.

Mr. Jorgensen is president of the Earle M. Jorgensen Co., which he founded in 1922. The home office is located in Los Angeles, with branch plants in Oakland and San Francisco, Calif.; Houston and Dallas, Texas; and Tulsa, Okla.

Your One Supplier with everything in L. P. gas and Anhydrous Ammonia Equipment



"The Loadmaster" LPG Truck Tank

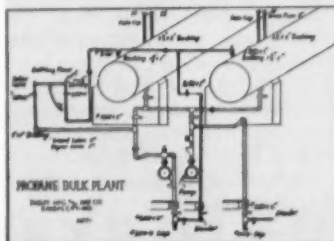
"Pastels By Pasley"

COLOR—The Modern Trend! Bring your LPG Equipment up to date. Available in the following colors . . . (write for information)

BLUSH PEACH
SUNSHINE YELLOW
MUSTARD LIME
EUREKA ORCHID
LAKE BLUE

SMOKY GREY
SEAFOAM BLUE
WEDGEWOOD GREEN
ROSE BEIGE
DESERT ROSE

PASLEY-DESIGNED Truck Tanks (see above and right) were first to feature all controls from one location. All operation is from one point—rear compartment.



BULK PLANTS Pasley LPG and Ammonia type installations—a turnkey job or engineering for your own installation. Write, wire or call.

Also a complete line of accessory equipment.

"EVERYTHING IN LPG AND ANHYDROUS AMMONIA"

The Pasley Mfg. & Dist. Co.

401 East 11th Street • Kansas City, Mo. • Tel. Victor 2-2369

**You'll close more
appliance sales
when you use
this handy
COMPETITIVE
COST CALCULATOR**



Now . . . with this authoritative, convincing sales tool, you can prove to your prospects *quickly, easily, and simply* that LPG costs less than electricity for cooking and water heating. Money talks with most people, so *dramatize the savings* with a Competitive Cost Calculator.

Compares the average annual cost of operating LPG versus electrical appliances, using your own local rates.

Proves to your customers' satisfaction that it's less expensive to cook and heat water with LPG than with electricity.

It's authoritative! Average annual usage figures for both LPG and electricity are taken from Technical Bulletin 1073 prepared by the U. S. Department of Agriculture. It will last for years. Made from durable plastic-laminated board.

LPG OPERATORS—

The Competitive Cost Calculator builds fuel sales as it builds appliance sales. Hundreds of LPG appliance salesmen are using the Calculator to add authority to their sales presentations. Be sure each of your salesmen has one with him on every call.

\$1.00 each

Orders of 50 to 99—80¢ ea.
Orders of 100 or more—70¢ ea.

(In California add 4% Sales Tax)

**The supply is limited,
so order today!**

Butane-Propane News
198 S. ALVARADO STREET
LOS ANGELES 57, CALIF.



Steve Fligelman
United Petroleum



C. M. Cole
Tuloma



C. N. Perry
Rockwell



W. F. Boucher
Sinclair Oil

**Perry promoted to factory
manager for Rockwell Mfg.**

Charles N. Perry, purchasing agent for Rockwell Manufacturing Co.'s Oakland, Calif., plant for the past five and a half years, has been named factory manager of the company's new Porterville, Calif., plant.

According to Lloyd A. Dixon Jr., vice president in charge of meter and valve division, Mr. Perry will be in charge of all plant operations. He will report to Norman W. Rowand, assistant to Mr. Dixon, who makes his headquarters in Pittsburgh.

**Fligelman is appointed to
United's gaservice division**

United Petroleum Gas Co. announces the appointment of Steve Fligelman to the position of merchandise manager, manager of personnel and public relations for the consumers gas service division.

Mr. Fligelman was the former vice president of Consumers Gas Co. of Detroit Lakes, Minn.

**Boucher returns to Sinclair
as a sales representative**

William F. Boucher has returned to Sinclair Oil & Gas Co. as a sales representative in the liquefied gas products sales department following two years with the U. S. Air Force, John A. Storm, sales manager, announces.

Mr. Boucher will assist G. F. Wolfkiel handling L. P. gas sales in Texas, New Mexico, Arkansas, and Oklahoma.

**Cole is chief engineer for
Tuloma Gas Products Co.**

Charles M. Cole, Jr., has been named chief engineer for Tuloma Gas Products Co., it is announced by K. V. Doughty, manager of supply.

The position of chief engineer

is newly created to supervise the construction and operation of the company's product storage installations, truck terminals, and other supply facilities.

Mr. Cole joined Tuloma in 1954 as a mechanical engineer and was made senior mechanical engineer in 1956, the position he held until named chief engineer.

**Brown Stove Works appoints
representatives for Ind., Mo.**

Brown Stove Works Inc. announces the appointment of Raymond K. Coss, Elkhart, Ind., as its representative for Indiana, and Meyer & Nackman, manufacturers representatives, 1057 Big Bend, St. Louis 17, Mo., for eastern Missouri, including St. Louis.

Mr. Coss, Sheldon Meyer, and Les Nackman will handle the complete line of Brown sound value gas ranges.

**Dorman will represent Madden
as sales rep. in New York City**

Madden Brass Products Co. announces the appointment of J. A. Dorman to the company's sales force. Mr. Dorman will serve as sales representative in greater New York City area.

Mr. Dorman has had several years of selling experience at the wholesale level, not only in refrigeration and air conditioning, but in the wholesale plumbing and heating field as well.

**Four promoted to new posts
at Minneapolis-Honeywell**

The appointment of H. T. Sparrow to the newly created position of director of product research for the temperature control phase of Minneapolis-Honeywell's business has been announced by James H. Binger, vice president in charge of temperature control activities.

Mr. Sparrow has been director of engineering in the temperature control group since 1955. He has

RIDE WITH NUMBER ONE



Philgas^{*} is number one in LP-Gas sales!

Philgas is a dependable Phillips 66 product with all the advantages that implies! It's specially refined for extra cleanliness and high heat content. When you sell Philgas you're assured of a dependable source of supply, prompt deliveries, "pre-sold" customers. Phillips maintains a staff of LP-Gas specialists to advise on economical plant design and safe, efficient equipment. Colorful magazine ads,

plus radio, are pushing Philgas sales for you. Advertising material is also supplied for your own promotions. Write for full information.



*Philgas is the Phillips Petroleum Company trademark for its high quality LP-Gas (propane, butane).

PHILLIPS PETROLEUM COMPANY

SALES DEPARTMENT, Bartlesville, Oklahoma

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ATLANTA, GA.—1428 West Peachtree Street
CHICAGO, ILL.—7 South Dearborn St.
DENVER, COLO.—1375 Kearney Ave.
DES MOINES, IOWA—6th Floor, Hubbell Bldg.

HOUSTON, TEX.—1020 E. Holcombe Blvd.
INDIANAPOLIS, IND.—1112 N. Pennsylvania St.
KANSAS CITY, MO.—500 West 39th St.
MINNEAPOLIS, MINN.—212 Sixth St. South
NEW YORK, N. Y.—80 Broadway
OMAHA, NEB.—6th Floor, WOW Building

RALEIGH, N. C.—804 St. Mary's St.
SALT LAKE CITY, UTAH—68 South Main
ST. LOUIS, MO.—4251 Lindell Blvd.
TAMPA, FLA.—3737 Neptune St.
TULSA, OKLA.—1708 Utica Square
WICHITA, KAN.—501 KFH Building

been with Honeywell for 22 years.

Coincident with his appointment, three related major promotions in the company's Minneapolis engineering and manufacturing organizations were announced by James S. Locke, manager of operations for the Minneapolis division of the temperature control group.

Stanley J. Nelson, who has been factory manager of all Minneapolis plants, except the aeronautical division since 1952, has been named to succeed Mr. Sparrow as director of temperature control engineering.

J. R. Gentry, who has been general superintendent of Minneapolis plants since 1953, has been appointed factory manager.

Donald L. Murphy, who has been assistant general superintendent, has been named general superintendent.

Mylander, Smith promoted to new posts at Ensign

Roy Mylander has been promoted to installation engineer for Ensign Carburetor Co., Fullerton, Calif., according to an announce-

ment by R. P. Ensign, vice president.

Mr. Mylander, associated with Ensign for over 21 years and widely known throughout the industry, will be responsible for the development of field installations and assemblies of Ensign L. P. and natural gas carburetion equipment. During the past 12 years he has conducted carburetion schools for many of the leading industrial firms and L. P. gas equipment distributors.

L. G. Smith, field engineer for Ensign during the past 18 years, now assumes new responsibilities as service engineer. He has served in the capacity of Ensign field representative in west Texas and the Pacific Northwest and now returns to the factory's home office in Fullerton to direct field service activities for the Pacific Coast area.

Pope and Sims fill key sales posts at J. B. Beaird Co.

Gerald Pope and J. R. Sims, experienced sales personnel, have been advanced to key positions at the J. B. Beaird Co., Inc., as a result of expanded company operations, John L. Tullis, vice president of sales, has announced.

Mr. Pope, who has been district sales manager of Beaird's Houston



Gerald Pope
General mgr.



J. R. Sims
District sales

office, succeeds Melvin A. Finuf as assistant general manager of sales. He joined Beaird in March 1948 as a sales engineer and later was named district manager.

Mr. Sims, who has been the compressor division sales engineer in Midland since he joined Beaird in November 1955, has been advanced to Houston district sales manager, replacing Mr. Pope.

Arden elected president and Robertshaw board chairman

The board of directors of Robertshaw-Fulton Controls Co. announced recently the election of Thomas T. Arden as president and

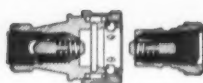
HANSEN

QUICK-CONNECTIVE 2-WAY SHUT-OFF COUPLINGS!



QUICK CONNECTION
AND
DISCONNECTION

INSTANT
AUTOMATIC FLOW
OR SHUT-OFF



**Seals Both Ends of Line
AUTOMATICALLY
INSTANTANEOUSLY**

*Quick Connective
Fluid Line Couplings for*

AIR • OIL • GREASE • STEAM
HYDRAULIC FLUIDS • VACUUM
REFRIGERANTS • OXYGEN
ACETYLENE • GASOLINE
WATER • COOLANTS

HOSE CLAMPS
HOSE CLAMP PLUGS
HOSE CLAMP SOCKETS
HOSE CLAMP COUPLINGS

To connect a Hansen Two-Way Shut-Off Coupling, you just pull back the sleeve and push the Plug into the Socket. To disconnect, merely pull back sleeve. No tools required. Similar valves in Socket and Plug shut off both ends of line when Coupling is disconnected—practically eliminate spilling of liquid or escape of gas at instant of disconnection.

FEMALE PIPE THREAD CONNECTIONS FROM 1/4" TO 1"

Hansen Series HK Two-Way Shut-Off Couplings are available with female pipe thread connections from 1/4" to 1" inclusive. Available in brass or steel.

*Also Straight-Through and One-Way
Shut-Off Couplings. Write for Catalog.*

REPRESENTATIVES IN PRINCIPAL CITIES

SINCE 1915

QUICK-CONNECTIVE FLUID LINE COUPLINGS

THE HANSEN



MANUFACTURING COMPANY

4031 WEST 150th STREET • CLEVELAND 11, OHIO

... never had a freeze-up!

... standby plant worked perfectly!

... always have uniform pressure!

... heat value is constant!

**Customer praise builds business!
... you'll get it with a MITCHELL
VAPORIZER on every installation.**

MITCHELL Direct-Fired Vaporizers are available in two sizes to meet the need for continuous LP gas service in a variety of commercial and industrial applications. For use with above or below ground LP gas systems, MITCHELL Vaporizers provide a safe, steady, constant-BTU supply of gas uninterrupted by freeze-ups due to temporary over-loads or heavy withdrawals.

Minimum Size Storage Required MITCHELL Vaporizers eliminate the need for oversize storage tanks to meet temporary over-load demands ... hence make possible more compact systems. They are designed for use with all heating, drying or stand-by applications requiring from two to several hundred gallons per hour. (For the larger demands, MITCHELL Vaporizers may be manifolded together.)

Automatic Selective Control MITCHELL Patented "Automatic Selective Control" automatically controls the rate of gas vaporized to equal the rate of usage. It permits vaporizer to supply either generated gas, or storage gas ... or both at the same time. Simple, positive safety devices (providing overflow and pilot burner shut-off protection) make MITCHELL units safe and reliable.

Simple Installation Installation of MITCHELL Vaporizers is simple and easy; and once properly installed, they will give years of constant, trouble-free gas service. All MITCHELL units have been tested and listed under Underwriters' Laboratories' requirements.

Approved by
Factory Mutual
Laboratories



Listed by
Underwriters'
Laboratories

**Build a reputation for dependability
with MITCHELL VAPORIZERS**



JOHN E. MITCHELL COMPANY

3800 COMMERCE STREET • DALLAS, TEXAS

Manufacturers of Fine Machinery for More Than Half a Century



Model 30

Provides up to 30 gallons of gas per hour ... well suited to the small and medium size industrial and commercial applications.

Model 70



Capacity: 70 gallons per hour. This unit is the largest standard MITCHELL Vaporizer. May be used singly or in manifolded combination for large industrial applications

SPECIFICATIONS

Model No.	Ht. (in.)	Wd. or Width (in.)	Depth (in.)	Shut. Wt. (lbs.)	Rated Input (BTU/hr.)	Weg. Pres. (psi.)	Pilot Burner (BTU/hr.)	Rated Cap. (gals/hr.)
30	27 1/2	13 1/2	10	17 1/2	30,000	2 1/2	1100	30.0
70	29	32	16	46 1/2	75,000	2 1/2	1100	70.0

When that 'tough' customer says ...



Just tell him ...



Yes, the new Reznor is the first completely modern gas unit heater ... modern design from any angle, front or back ... and functional design, not just "fashionable" design.

The new Reznor proves that the back of a heater need not be an eye-sore and a dust-catcher. There are no dangling gadgets, no unsightly hang-ons and no confusion of piping, controls and connections. All controls and connections are conveniently grouped inside the cabinet, easily accessible through a snap-out door on one side of the unit. This means greater eye appeal for easier selling. It means greater ease of installation and service, too. And it's a Reznor exclusive.

The new Reznor has a new look ... but it still offers the same rugged construction, reliable performance and top efficiency which have made Reznor the top name in unit heating. See your Reznor distributor for details on what this can mean to you.



Reznor Manufacturing Co., 4 Union St., Mercer, Pa.



T. T. Arden
President



J. A. Robertshaw
Board chairman



R. L. Sylvester
Rockwell

of John A. Robertshaw, former president, as chairman of the board.

Mr. Robertshaw immediately announced the formation of a three-man executive committee headed by Richard S. Reynolds, Jr., former chairman of the board. The committee includes Mr. Robertshaw and Mr. Arden.

Mr. Arden, executive vice president of the firm since 1947, will assume his new duties immediately. He was in charge of the company's western operations.

Mr. Robertshaw was president of the company since 1947. Prior to that time, he was president of Robertshaw Thermostat Co., Grayson Heat Controls Ltd., and American Thermometer Co.

A. C. Hansen, national service director of the company, also announces the appointment of Charles E. Smith to assistant national service director.

Mr. Smith's work will be primarily in establishment of an expanded training program for utility, distributor, and retailer servicemen, and others responsible for field service of appliance controls and thermostats.

Mr. Smith formerly served as manager of the product service division of A. O. Smith Corp., where he was employed from 1942 until this year.

Sylvester will coordinate Rockwell, Republic sales

Russell L. Sylvester, chief engineer of Rockwell Manufacturing Co.'s central valve research and development department, has been promoted to engineering executive assistant of Republic Flow Meters Co. of Chicago, newly acquired Rockwell subsidiary.

In his new capacity, Mr. Sylvester will assist William F. Crawford, vice president of Rockwell and Republic and president of Edward Valves, Inc., East Chicago, Ind., who is responsible for co-ordination of all Rockwell and Republic operations.

Mr. Sylvester will be primarily responsible for coordinating engineering and sales activities of the two companies.

A. O. Smith announces two new management appointments

Two new management appointments have been announced by W. T. Halket, general manager of domestic water heater sales, the Permaglas division, A. O. Smith Corp.

H. L. Balthazar, formerly supervisor of marketing services, has been named assistant sales manager, domestic water heaters.

V. H. Swearingen, formerly assistant to Mr. Balthazar, replaces him as marketing services supervisor.

L. C. Smyth retires from Roberts-Gordon Corp.

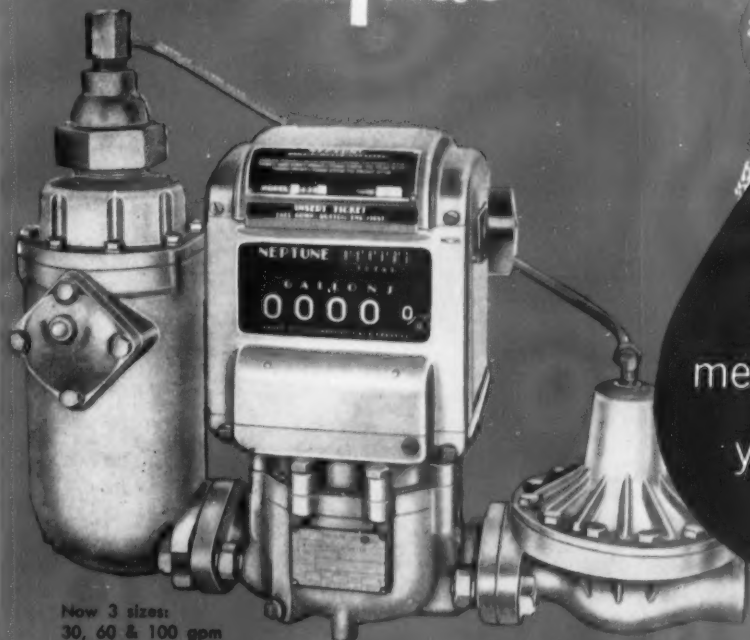
W. Stuart Gordon, Jr., president of the Roberts-Gordon Appliance Corp., Buffalo, N. Y., recently announced the retirement of Leonard C. Smyth, executive vice president of the American corporation, and vice president of its Canadian affiliate.

Mr. Smyth will remain as a director of the corporation and in the capacity of consultant. His association with the Roberts-Gordon Corp. started in 1938 as vice president, and he was promoted to the executive vice presidency a few years later.

Woodruff is manufacturers' agent for John Wood Co.

John Q. Woodruff has been named manufacturers' agent for John Wood Co. in Utah, Montana, Nevada, Idaho, and western Wyoming. He will handle John Wood automatic water heaters and fluid heat heating equipment for the firm's heater and tank division, it is announced by W. Glen Oslin, vice president and general sales manager.

RED SEAL *Liquid* METERS



Now 3 sizes:
30, 60 & 100 gpm

The most
fool-proof
metering system
you can buy

A properly installed Red Seal liquid meter is so fool-proof, it's a cinch to keep accurate, business-like records of LP-gas stocks and sales . . . with meter-printed tickets as proof of every transaction. Here's how:

First, all three sizes of Red Seal "compacts" are complete systems. All accessories are built in. Fewer connections to make, fewer chances for leaks, and fewer chances for improper installation.

Secondly, Neptune's unique design of vapor eliminator and differential valve gives you a system that's truly effective . . . positive assurance against vaporization in the metering system under all conditions. It's always easy on your pumps, and never needs adjusting from hot weather to cold. In fact, it has no adjusting screw at all, so it's fool-proof!

Thirdly, Red Seal's calibration shifter is a gear-locked device. Easy to adjust if necessary, it positively cannot loosen up or drift out of adjustment. Meter-printed tickets are a big feature, too. They eliminate human error, keep customers satisfied.

Most important, Red Seal's sustained high accuracy is something you can bank on . . . year after year.



**NEPTUNE METER
COMPANY**

19 West 50th St., New York 20, N. Y.

CANADIAN FACTORY

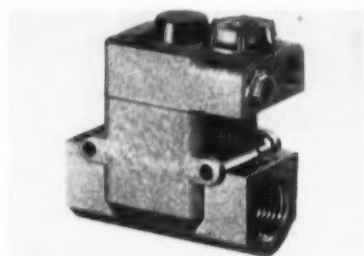
Neptune Meters Ltd., Toronto 14, Ont.

88 31

WHAT'S NEW

IN PRODUCTS AND TRADE LITERATURE

For further information on items reviewed in this section use the convenient post-paid Readers' Service Cards on pages 83, 84

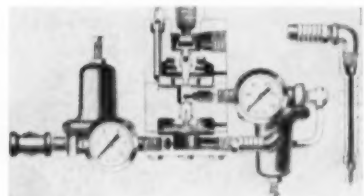


Safety valve

A gas appliance safety valve, applicable for use on gas ranges, space heaters, clothes dryers, furnaces, and other gas-fired appliances, is announced by General Controls Co. The valve offers a 4-position head that can be ordered pre-set for production line ease of attaching pilot take-off and thermocouple connections.

Features include 100 per cent safety, compactness, safe lighting, and ease of installation.

Circle 1 on Readers' Service Card

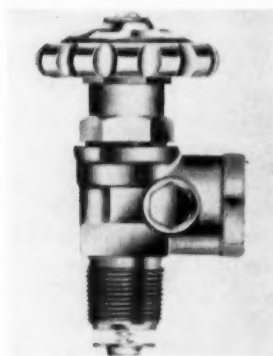


Cylinder filling valve

Newly-designed type N201 automatic cylinder filling valve is announced by Fisher Governor Co.

Intended for use on beam type scales, the valve is attached directly to the fuel manifold with $\frac{1}{2}$ in. pipe. Only the trip valve is mounted on the scale, by means of one small hole. No electric power source is necessary.

Circle 2 on Readers' Service Card

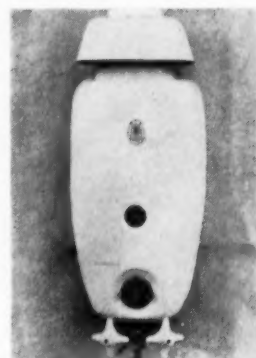


Transfer valve

Bastian-Blessing Co. announces the development of Rego 7050 and 7051 series transfer valves. The valve has been designed primarily for liquid transfer purposes on consumer bulk storage containers, according to the company.

The 7050 and 7051 have a $\frac{3}{4}$ in. NGT male inlet, with a $\frac{3}{4}$ in. NPT female outlet on the 7050 and a $\frac{1}{2}$ in. NPT female outlet on the 7051. Both models are available with an optional excess flow valve in the inlet.

Circle 3 on Readers' Service Card



Instantaneous water heater

Norco Sales Corp.'s model MAG 125 "vaillant" instantaneous water heater for homes, trailers, boats, etc., has recently received AGA approval. It has a capacity of 40 gal./hr and heats only the amount of water immediately required.

It weighs 14 lb. and measures 19 $\frac{1}{2}$ in. high by 9 in. wide by 8 in. deep.

Circle 4 on Readers' Service Card

Air conditioner

A complete line of gas-fired forced warm air furnaces has been announced by the heating and air conditioning division of Stewart-Warner Corp.

"Wiz" model furnaces are equipped with an accordion-type heat exchanger which increases the heating surface by 56 per cent over ordinary furnaces, it is claimed. It

can be furnished as a complete year 'round conditioner, equipped with a Stewart-Warner evaporator cooling coil and outdoor condensing unit.

Models for all gases as well as controls for 100 per cent safety shut-off controls are also available.

Circle 5 on Readers' Service Card



Thermocouple

A thermocouple which generates greater electrical output than standard thermocouples has been developed by Grayson Controls division of Robertshaw-Fulton Controls Co.

The thermocouple, which is interchangeable on all standard pilots, was designed to eliminate service calls caused by needless pilot outages and to insure positive, trouble-free holding action.

Improved thermo-electric alloys are used to gain increased voltage output. The super-clad plating protects the copper from heat and prevents oxidation for more positive operation.

Circle 6 on Readers' Service Card



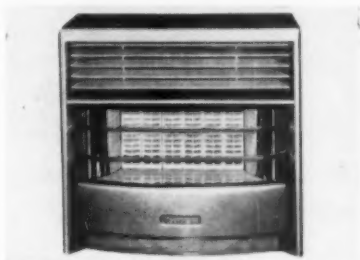
Metered service display

The advantages of metered liquefied petroleum gas service are shown in a graphic "portable

house" display unit now being made available to all dealers by Rockwell Manufacturing Co.

The new exhibit, which is designed for use at all promotional and educational activities in which LPG dealers participate, weighs only 72 lb, including the weight of a standard Rockwell LPG meter, and is hinged to fold into a latching carrying case equipped with handles for easy handling.

Circle 7 on Readers' Service Card



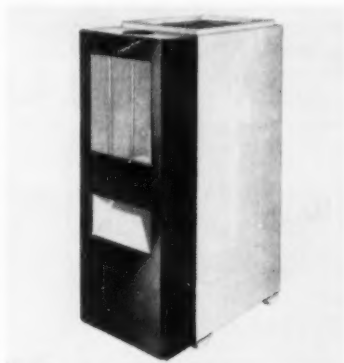
Unvented heater

Dearborn Stove Co. introduces a new "cool safety cabinet" gas area heater in its "crest" series.

The unvented crest heater has a completely new look. It is lower and longer.

Dearborn cool safety cabinet crest gas heaters are produced in a full line of models and sizes, from 12,000 Btu to 35,000 Btu, and are available with a variety of automatic safety and heating controls.

Circle 8 on Readers' Service Card



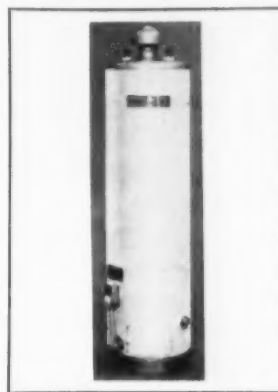
Forced air furnace

A new line of forced air gas furnaces with bottom hot air discharge for domestic heating has been developed by General Gas Light Co. Due to availability of several types of warm air duct fittings, the same "humphrey" forced air furnace may be installed for up-down or hori-

zontal warm air delivery. The unit is approved for close-to-wall installation.

Five sizes are offered in graduations of 15,000 Btu's from 60,000 to 120,000 Btu.

Circle 9 on Readers' Service Card

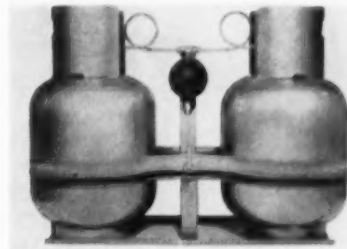


Water heater

Bryant Manufacturing Co. is now marketing its new "Crystalglas" water heater. This 30 gal. size has a 42,000 Btu per hour input. Officially known as Model 148R, this latest model is designed to accommodate all modern laundry equipment plus all other home sanitary requirements.

As proof of performance, recovery capacities for a 60° rise are 58.8 gal. per hour; for a 100° rise the recovery rate is 35.5 gal. per hour.

Circle 10 on Readers' Service Card



Trailer cylinder assembly

Steel Coorage division, The Serrick Corp., announces its "Lee" double 20 lb. trailer cylinder assembly.

This assembly comes completely assembled and individually cartoned. The complete package includes cylinders, valves, regulator, T-check, pigtail, outlet connection, and substantial carton.

Circle 11 on Readers' Service Card



Water heater line

A high recovery gas water heater line has been announced by the plumbing and heating division of American-Standard.

Four of the new models are glass-lined. Three have galvanized steel tanks sealed by a special new "sigma welding" process.

Controls include 100 per cent automatic shut-off valves, "snap action" thermostat and a pilot which operates with all types of gases and is adjustable for all conditions. Controls may be removed without draining the tank.

Other features of the line include: magnesium anodes as added protection against tank corrosion, glass fiber insulation which acts as a barrier against heat loss, dip tubes to properly diffuse the cold water, and a finish of durable baked enamel.

Circle 12 on Readers' Service Card



"Private line" radio

Motorola Communications & Electronics Inc. announces the 450-470 mc "private line" radio. The private line will literally "shut out" communications from other users operating on the same channel, according to the company.

The new radio transmits a continuous, sub-audible tone along with every voice transmission. Receivers "open up" for listening only when the proper tone is transmit-

ted, so that reception is cut out except when transmissions are being originated by the dispatcher or other mobiles operating in the same system.

Motorola states that this is the first application of this type of radio in the UHF band.

Circle 13 on Readers' Service Card



Multi-purpose cooking unit

A new gas range feature, called the "roast-o-grill," permitting baking, roasting, grilling, and steaming on top of the range, has been introduced by the Geo. D. Roper Corp. It offers the benefits of a second oven and a handy comfort-level location.

Roper's "insta-set" control panel is also featured on its 1957 gas ranges now on display. The panel groups all major controls within easy reach. Above the panel, the frame flares forward into a 4-in. wide condiment shelf.

The panel controls include Roper's "insta-matic" oven clock control, "roast minder" temperature control, appliance outlet, automatic oven signal light, oven lamp switch, backrail lamp switch, "rotomatic" rotisserie switch and precision "in-line" timer.

Circle 14 on Readers' Service Card



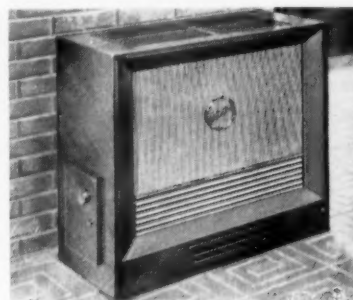
Two-piece nozzles

Increased flame-cutting speeds are possible with a complete selection of new "oxweld" two-piece nozzles developed by Linde Co., division of Union Carbide Corp.

Designed for flame-cutting with

oxygen and fuel gases, each of the two-piece nozzles has from 12 to 20 extremely small outlets for preheat gases. The nozzles have a divergent bore design that enables gases to leave at 1200 ft per second.

Circle 15 on Readers' Service Card



Vented room heater

The latest addition to Empire Stove Co.'s expanding line of gas heating appliances is the "imperial" vented room heater.

The imperial uses "triple-therm" heat, which eliminates drafty floors and gives greater warmth in three ways. Gravity heat, permitting warm air to flow into the room through special louvre openings at the top; radiant heat, flooding the living area with warmth from the front; and counter flow heat, delivering warm air at the floor level.

Circle 16 on Readers' Service Card



Upright water boiler

Ewing Manufacturing Co.'s upright, fully automatic, gas-operated hot water boiler requires no extra space-consuming storage tanks.

The smallest model, which will raise 250 gal. of water 60° each hour, or 136 gal. 100°, occupies floor space less than 2 ft sq. The second size will raise 432 gal. an

(Continued on page 86)

FOR MORE INFORMATION

about New Products in this issue . . .

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Each New Product or Trade Literature item reviewed in this issue is numbered. To get further information about items that interest you, circle the corresponding numbers on the Readers' Service Card below; then PRINT your name, title, company and address plainly and drop the card in the mails (no postage is needed).

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BUTANE-PROPANE News

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August, 1957

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Each New Product or Trade Literature item reviewed in this issue is numbered. To get further information about items that interest you, circle the corresponding numbers on the Readers' Service Card below; then PRINT your name, title, company and address plainly and drop the card in the mails (no postage is needed).

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BUTANE-PROPANE NEWS

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LOS ANGELES 57, CALIF.

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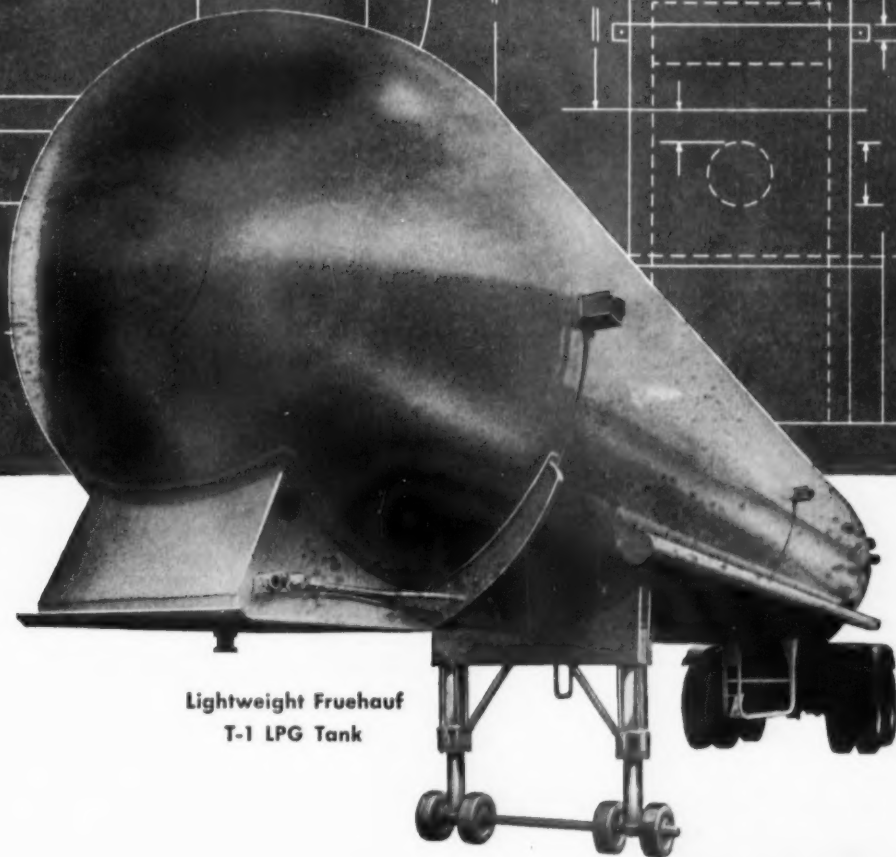
First Class Permit No. 6955, Sec. 349 P. L. & R., Los Angeles, California

BUTANE-PROPANE NEWS

198 SOUTH ALVARADO ST.
LOS ANGELES 57, CALIF.

NEW, HIGH-VOLUME FRUEHAUF LPG TANK

BUILT WITH T-1 "WONDER STEEL"



Lightweight Fruehauf
T-1 LPG Tank

After more than 3 years of intensive research and development, Fruehauf now brings operators a high-volume LPG tank constructed of the new wonder steel, T-1.

Fully proven, the new tank exceeds all legal strength and safety requirements. It brings you rugged dependability and lightest weight yet in an LPG.

With the addition of the T-1 Tank to Fruehauf's lineup of standard A-202 Tanks, operators can choose from the most complete selection of LPG equipment offered by any manufacturer.

Profit-conscious operators can expect excellent delivery schedules, too!

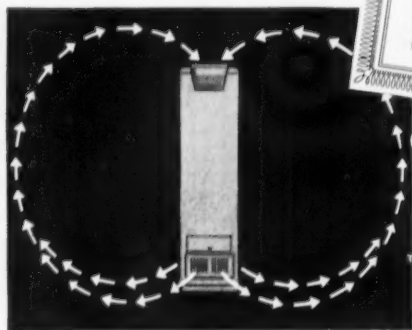


World's Largest Builder of Truck-Trailers **FRUEHAUF TRAILER COMPANY** 10995 Harper Ave., Detroit 32, Mich.

The sale is built in *Universal*

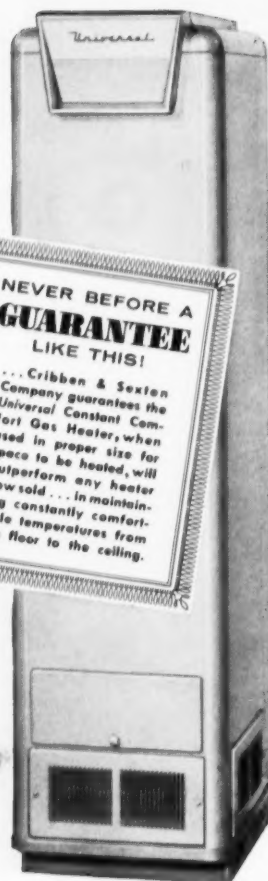
Constant Comfort GAS HEATERS

- Revolutionary new heating principle!
- Guaranteed to outperform any other heater!



This is it:

pre-heated ceiling air is drawn in through the top by fan action, filtered, forced downward through the heater, and delivered through floor-level vents to rise again and flood the entire room with even, thermostatically controlled heat.

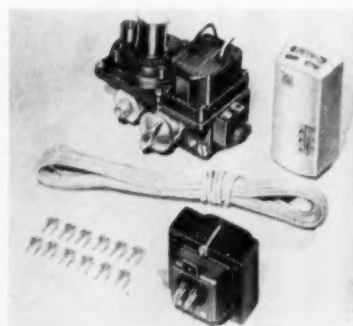


(Continued from page 82)

hour by 60° or 275 gal. 100°. It is 25 in. in diameter. The largest of the three models will raise temperature of 720 gal. 60° or 400 gal. 100° per hour. It is 31 in. in diameter and 82 in. tall.

Storage capacities range from 55 to 145 gal. Water can be safely heated up to 200° F. Shipping weights on the three models are 600, 850, and 1325 lb.

Circle 17 on Readers' Service Card



Self-contained gas control

A self-contained, silent gas control for clothes dryers and wall, space and unit heaters, has been developed by A-P Controls, a sales division of Controls Co. of America. One of a complete line of gas controls, model 5010 features silent operation, 100 per cent safe lighting and 100 per cent shut-off.

A convenient pilot adjustment modulates the pilot flame to suit equipment needs. The large capacity built-in pilot filter removes gas impurities to reduce pilot outages.

Circle 18 on Readers' Service Card



New convenience!
Simplified, eye-level controls, up out of the children's reach.



New safety!
Fiberglass insulated cabinet stays cool, and is safe to touch.



New freshness!
Heats and delivers only freshly filtered air—clean, healthful.



New comfort!
Front vent and 2 adjustable side vents spread heat evenly.



New space-saving!
Fits in far less space than conventional type "space heaters."



New utility!
Also operates as an air circulator during hot summer weather.

3 Models Provide Just the Right Amount of Heat for Varying Needs

A Product of CRIBBEN & SEXTON COMPANY

Makers of Famous Universal Gas Appliances

700 North Sacramento Boulevard, Chicago 12, Illinois

CALL YOUR DISTRIBUTOR



Kitchen water heater

A new line of automatic gas water heaters designed with the kitchen in mind is introduced by Handley-Brown Heater Co.

The cabinet design permits these heaters to be installed right up against other appliances or cup-

General Electric announces

New transistorized power supply for two-way radio



Easy to install—Three mounting studs fasten the new unit to the front of your case or inside the older, two-unit design equipment. Electrical connections are simple: only four leads to attach.

Eliminates "Vibrator Hash" — All traces of the "vibrator hash" which interferes with clear reception are gone for good.

Easily added to any 12-volt system — The new power supply can be used with all standard makes of two-way equipment which operate from an ordinary 12-volt power source.

Saves you money when drivers forget—When drivers neglect to turn off their radios before starting a vehicle, the new transistorized power supply cannot be damaged.

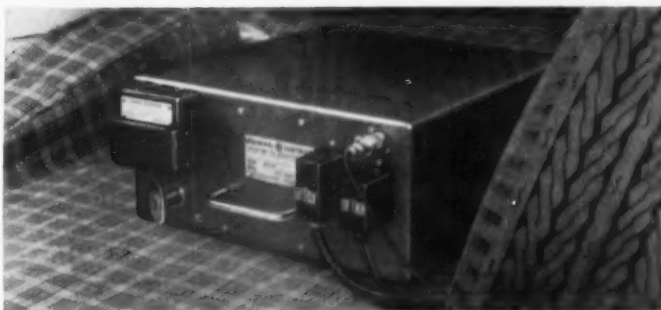


See for yourself how much you save—buy a new unit or several units and try them in your own 12-volt mobile units. Call your G-E communications consultant, listed under "Radio Communication Equipment" in the Yellow Pages. Or order direct by writing General Electric Co., Communication Products Dept., Syracuse, N. Y.

General Electric now brings you the vastly improved reliability of transistors — without obsoleting your present equipment!

The all-new General Electric Transistorized Power Supply—part of G.E.'s advanced Progress Line—replaces the receiver portion of the mobile power supply and eliminates the receiver vibrator.

Here's what this means: Previously you had to replace receiver vibrators several times a year. Our surveys indicate each replacement costs you from \$10 to \$18, depending upon service call mileage. Now you can install a power supply costing only \$54.50 (when installed in new equipment at the factory, just \$44.50) which has the same life expectancy as your entire mobile combination. *The new G-E Transistorized Power Supply will easily pay for itself the first year or two on vibrator replacements and service calls!*



Progress without obsolescence — The addition of the new unit to your present mobiles, no matter what make, improves performance, reduces maintenance cost, and adds to the life of your equipment. *There is absolutely no need to buy complete new mobile units to enjoy the advantages of transistors.*

Progress Is Our Most Important Product

GENERAL  ELECTRIC

For further information on these products use Readers' Service Cards on pages 83, 84

boards while built-in draft diverters provide for full cupboard space immediately above the heaters. Upright models in this line are also available.

S-30G has full 30 gal. capacity and offers 36,000 Btu input. The 40 gal. model S-40G provides 40,000 Btu input on L. P. gases. Table top models STT-30HG and STT-30LG are available in 30 gal. size with 30,000 and 5000 Btu inputs respectively.

Circle 19 on Readers' Service Card



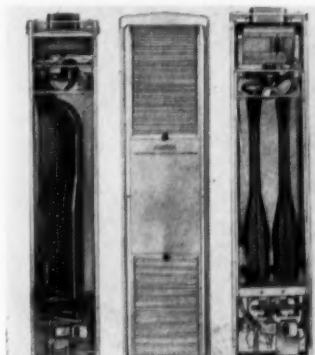
Tar kettle burner

A tar kettle burner used to convert large tar kettles for use with L. P. gas is now being manufactured by Mutual Liquid Gas Equipment Co.

The No. 12 burns vapor from L. P. gas cylinder or tank. It has adjustable primary air intake and

will produce any desired output up to 700,000 Btu per hour. It can provide dealers with an important load.

Circle 20 on Readers' Service Card



Built-in gas wall heater

Samuel Stamping & Enameling Co. has placed on the market a vented forced-air counter-flow, gas-fired wall heater which can provide efficient, comfortable, yet inexpensive, home heating.

The top of the "Suburban" unit functions to draw in cool air. A fan

forces the heated air out at the bottom—at floor level. This causes a constant, forced circulation in which the floor area is heated first. The cool air intake is approximately at eye-level which keeps the heat from being wasted at the ceiling.

Each unit is a complete, compact heating plant in itself. The fully automatic controls are built in at the factory. It is designed to fit between standard studding on 16-in. centers.

Circle 21 on Readers' Service Card

Cool cabinet unvented heater

A cool cabinet unvented heater that hangs on the wall, firmly attached by just four screws, has been announced by Temco Inc.

The combustion housing is coated with Temco's "ceramic-clad," a high temperature porcelain enamel that will not rust nor burn out. Warm air is discharged from a metal mesh TV styled grille which if finished in porcelain enamel to prevent discoloration.

Circle 22 on Readers' Service Card

The range with the most to sell...

the 1957 **Dixie** Automatic

A RANGE FOR EVERY BUDGET...

from apartment-size cooker to luxury models...

double ovens—built-in rotisserie

Don't miss those borderline sales. Sell every interested range customer with only one line—DIXIE. "Lookers" become "buyers" as they choose from Dixie's wide selection the range to suit them. And there's a DIXIE Automatic Gas Range to fit every home... every pocketbook. Be sure and make 1957 your big year. Stock Dixie Automatic Gas Ranges and watch your profits rise.

SUCH A RANGE OF FEATURES:

- Thermal-Eye Automatic Top Burner Heat Control
- Cast Aluminum Griddle
- Thrift-Kool Needle-type Lighters
- Safe-T-Locking-type Valves
- One-piece "Waterfall" Top and Manifold
- Double Oven with Built-in Rotisserie



320-9GLET

- 33" Lamp Hood—Fluorescent Top Surface Lighting
- Telechron Clock with 3½-Hour Interval Timer
- E-Z Glide Burner Grates
- Automatic Oven Heat Control
- Lifetime Titanium Porcelain Finish
- Drop-Front Smokeless Broiler on Roller Bearings with Two-Piece Broiler Pan
- Gravy Moat and Drip Trays for Griddle
- Rounded Oven Corners
- View-through Glass Oven Door

DIXIE PRODUCTS, INC.

Dept. 7BP2, CLEVELAND, TENNESSEE

More and More Dealers are getting on the D.W. WHITEHEAD Automatic **GAS** WATER HEATER Bandwagon



Especially
Designed for
LP GAS



**QUICK TURNOVER
COMPETING
PRICES**

Nationally Advertised

Liberal 10 year guarantee

D.W. WHITEHEAD 

D. W. WHITEHEAD MFG. CORP.
1214 WALNUT AVE., TRENTON 9, N.J.

For further information on these products use Readers' Service Cards on pages 83, 84

Tar kettle burner

There is a new burner assembly on the market that is designed for asphalt and pitch trucks, tar kettles, and many other small industrial uses. It is available in three models for preheating of components or direct firing of materials, from Flamegas Detroit Corp.

This burner assembly will deliver up to 2000°. Pilot light failure or electrical failure will automatically shut off the gas. It operates on vapor or liquid and on

gas pressures from 10 to 120 lb. The units are available with 100 per cent safety control and temperature control.

Circle 23 on Readers' Service Card

Propane torch

A propane torch that operates with push button control is now marketed by Otto Bernz Co.

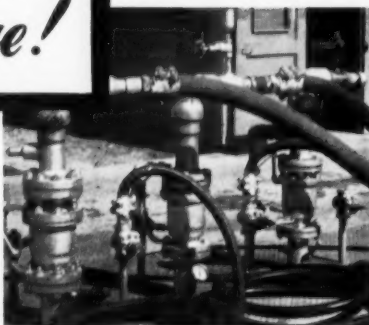
Called the "Bernz-o-matic," this torch responds to various amounts

of pressure, provides a steady flow of heat ranging from a small pilot light to a 2300° F jet blast flame.

Each gas cylinder gives up to 15 hours of burning performance and the disposable cylinders can be easily replaced. The total weight, with filled cylinder, is 2 lb.

Circle 24 on Readers' Service Card

*Strongest, Safest
Connections...for
All L-P Hose!*



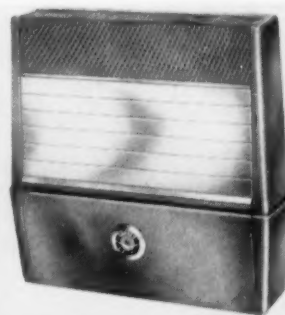
"G J-BOSS" STYLE X-34

GROUND JOINT FEMALE COUPLINGS

Unequalled in strength, durability and safety! That's why more and more "GJ-Boss" Couplings are being used on hose handling L-P Gas . . . at bulk plants . . . on carloading rigs . . . and other installations. All parts are steel or malleable iron, thoroughly rustproofed. Furnished with super-strong "Boss" Offset and Interlocking Clamps. Ground-joint union between stem and spud forms leakproof, trouble-free seal. Sizes 1/4" to 6", inclusive. Also available in washer type, and with companion "Boss" Male Couplings. Stocked by Manufacturers and Distributors of Industrial Rubber Products.

DIXON Valve & Coupling Co.

GENERAL OFFICES & FACTORY—PHILADELPHIA 22, PA. BRANCHES—CHICAGO
BIRMINGHAM • LOS ANGELES • HOUSTON • DIXON VALVE & COUPLING CO., LTD., TORONTO
ASSOCIATE COMPANIES—BUCK IRON COMPANY, INC., QUARRYVILLE, PA. • PRECISION DRAWN STEEL COMPANY, CAMDEN, N. J.



Gas wall heater

Quaker Manufacturing Co.'s "direct-vent" gas wall heater—Model DV-206—is designed for safety; it can be easily installed for flush-to-wall mounting.

Outside air is used for combustion. No oxygen is taken from the room. All combustion fumes and gases vent outside. Installation requires a 9 in. diameter hole through the wall, regardless of material.

This heater has a 20,000 Btu input and is 28 in. high, 28 in. wide, and 7 1/2 in. deep.

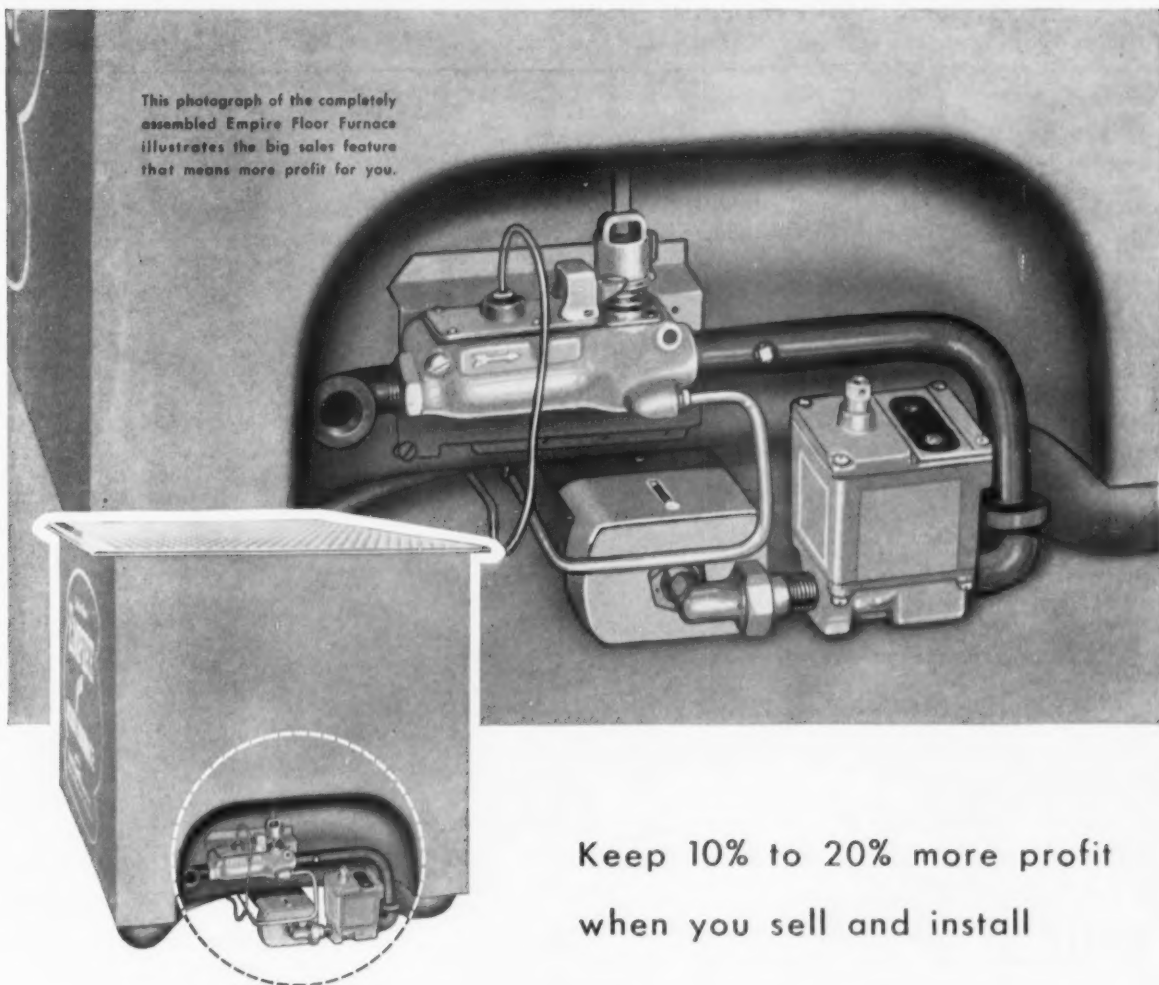
Circle 25 on Readers' Service Card



Melting fire pots

The Circle Gas & Manufacturing Co. has just announced a new addition to its line—the "redi melt" melting fire pots for melting lead, babbitt, zinc, paraffin, tar, and asphalt.

This photograph of the completely assembled Empire Floor Furnace illustrates the big sales feature that means more profit for you.



Keep 10% to 20% more profit
when you sell and install

EMPIRE FLOOR FURNACES

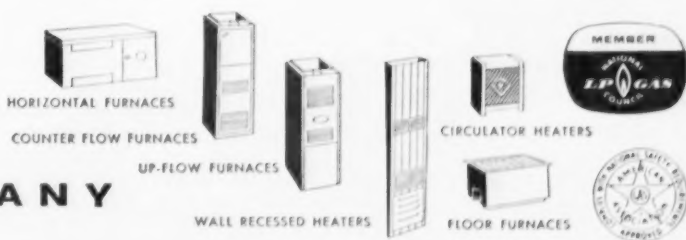
It's not how much you make, it's how much you *keep*, that determines whether or not a line is profitable.

Empire dealers keep 10% to 20% more profit because Empire Floor Furnaces are 100% wired and assembled at the factory. Each unit is thoroughly tested and inspected to insure perfect operation. This means that installation costs are 10% to 15% *less*. Service calls are practically eliminated, and service costs are 75% less. Selling is easier, too. The Empire floor furnace is quiet.

Each unit is attractively painted, and has a 20 year warranty on the combustion chamber.

Empire dealers can rely on Empire's reputation for quality products at competitive prices. Empire is the most complete line in the industry. See your Empire sales representative and find out how you can make a good profit, and *keep* it. Find out, too, how the Empire C. P. Plan can mean more profit for you!

Empire
STOVE COMPANY
Belleville • Illinois



For further information on these products use Readers' Service Cards on pages 83, 84

The fire pot, which operates on propane, has a venturi type burner which affords better mixing of gases.

The fire pot is 12 in. high and weighs 13 lb.

Circle 26 on Readers' Service Card

Storage booster

The "jetglas storage booster" recently announced by the Day & Night Manufacturing Co. is avail-

able as a storage booster as a completely self-contained system requiring no pump, no storage tank or electrical wiring.

The model 100 has an input of 220,000 Btu/hr, reported to be the highest for its size in the industry today.

The unit can also be teamed in multiples for extremely high peak load requirements, used with Day & Night jetglas storage tank, or used as a straight booster with overhead storage tanks.

Circle 27 on Readers' Service Card

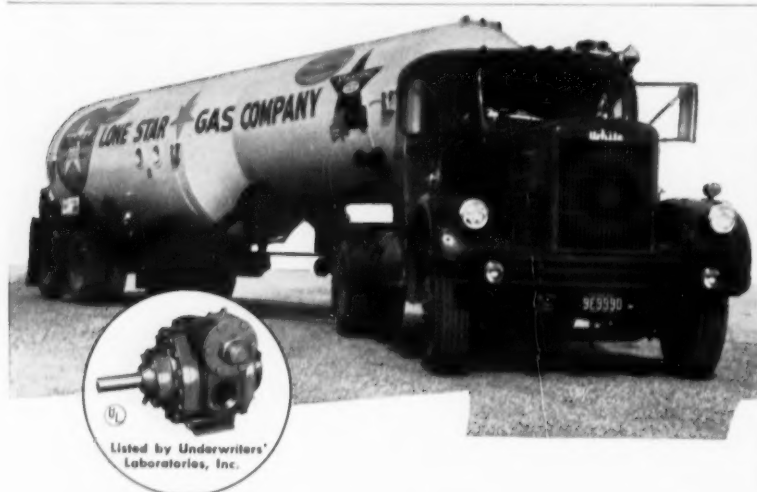


Outdoor cooking range

Those dealers who wish to capitalize upon the seasonal camping and travel practices of so many people will be interested in the "modernaire" portable rangette that is made by Modern Metal Manufacturing Co.

It is compact, a convenient size, and operates on L. P. gas. Each rangette has a 3½ gal. L. P. gas tank. Its operation cost is less than five cents per day average. The tank is 250 lb pressure tested for safety.

Circle 28 on Readers' Service Card



LONE STAR GAS delivers 20% greater load in 40% less time with BLACKMER PUMPS

A three inch Blackmer Model TLGL3 Liquefied Gas pump delivers the 6,500 gallon load of the Lone Star Gas Company's new propane transport at the rate of approximately 120 gallons per minute. This compares with a delivery rate of 40 gallons per minute by the smaller (3,700 gallon) transports in the Lone Star fleet, equipped with conventional two inch pumps. Unloading time for the larger transporter is approximately 60 minutes as compared with one hour and fifteen minutes for the smaller units.

Blackmer Rotary Pumps for handling liquefied gases have an outstanding reputation for their long-life in service and their low maintenance costs. They feature:

HEAVY DUTY ANTI-FRICTION BEARINGS located on both sides of the rotor and completely isolated from the pumpage.

CARTRIDGE TYPE MECHANICAL SEALS located on both sides of the rotor to control shaft leakage and protect the bearings from the pumpage. These seals are easily replaced and require no adjustment after installation.

SLIDING VANES which are "self-adjusting for wear" to maintain high efficiency over unusually long periods of service.



"liquid materials handling"® equipment

BLACKMER

INDUSTRIAL, HAND AND TRUCK PUMPS, STRAINERS, PRESSURE CONTROL VALVES
BLACKMER PUMP COMPANY, GRAND RAPIDS 9, MICHIGAN
 DIVISION SALES OFFICES
 NEW YORK • ATLANTA • CHICAGO • GRAND RAPIDS • DALLAS • WASHINGTON • SAN FRANCISCO
 See Yellow pages for your local sales representative

TRADE LITERATURE

"Selection Guide"

Performance rating figures for all of its new water heaters are incorporated in the American-Standard "Selection Guide." This handy reference booklet contains a listing of all household hot water needs for a 2-hour peak load period. When all these requirements are itemized, including those for appliances and personal use, it is possible to obtain a maximum total in gallons for an individual household. This total then can be matched against listed performance ratings of American-Standard water heaters for accurate selection of the proper model.

Circle 29 on Readers' Service Card

Condensed industrial catalog

A condensed industrial catalog listing hose, fittings, socketless kits and self-sealing couplings, has been released by Aeroquip Corp. It contains information on the company's standard industrial

*From Our
Large Tank Department*

MASTERPIECES in tank construction



Master handles them big as they come

Here's one of our production items. A 30,000-gallon storage tank being loaded for shipment by our new 80-ton crane. For refineries, Master Tank & Welding can make tanks and equipment as large as needed. Present automatic welding equipment will fabricate a tank 16 feet in diameter by 120 feet long. Our cranes can handle a tank weighing up to 200 tons. For production or custom tanks, call Master Tank & Welding first!



P. O. BOX 5146
2000 S. FRONT STREET, BOX 39

DALLAS, TEXAS
QUINCY, ILLINOIS

For further information on these products use Readers' Service Cards on pages 83, 84

products and is designed primarily for use in the replacement field. The catalog includes instructions for ordering, installation planning, and assembly of Aeroquip hose and fittings.

Circle 30 on Readers' Service Card

Valve literature

A new folder on brass composition-disc globe, angle and lift check valves has been published by Crane Co. The folder emphasizes the advantages of the composition disc brass valve for a broad range of services. It also shows other major design features of Crane brass composition-disc valve lines, and gives complete sizes and dimensions.

Circle 31 on Readers' Service Card

Gas heater control data

A new combination control for high capacity gas home heating units is described in a bulletin now available from Robertshaw-

Fulton Controls Co. Model HC-E, the gas heating control described, is especially designed for use on central heating furnaces with ratings up to 200,000 Btu's an hr. The bulletin is available upon request.

Circle 32 on Readers' Service Card

Water heating information

Specifications of 17 models of commercial gas water heaters are detailed in a new 8-page combination catalog and self-mailer from Ruud Manufacturing Co. It covers commercial units in the three use classifications of AGA—automatic storage gas water heaters, circulating tank gas water heaters, and instantaneous gas water heaters. Sizing tables show Btu input, hot water delivery at graduated temperature rises, and installation space requirements.

Two mailing folders—"Is Indirect Water Heating Wasting Your Fuel?" and "Your Dishwasher Can Save You Even More!"—are also available from Ruud. The brochures contain information for gas, L. P. gas, and plumbing per-

sonnel as well as those in the food service, motel and multiple dwelling trade fields. Both mailers feature simplified sizing charts—one for apartments and motels and the other for dishwashing in food service establishments.

Circle 33 on Readers' Service Card

Conversion folder

Step-by-step instructions presenting all information necessary to convert industrial trucks to L. P. gas operation have been published in an easily understood, 2-color, illustrated folder, available from Beam Products Manufacturing Co. The folder includes a complete installation diagram and explains the operation of the Beam system of L. P. gas carburetion.

Circle 34 on Readers' Service Card

Gas regulator reference

A brochure on gas regulators for house or service installation has been published by American Meter Co., describing its reliance

it takes...Enterprise

to keep your profits up!

Here are the Enterprise-ing steps we take to help make profitable sales for you.

Every Enterprise Range allows you a full, money-making markup. You can maintain this profit because, range by range, Enterprise quality more than stacks up with competitive brands. Those of you who've been selling Enterprise ranges know this.

Every Enterprise promotion—and, we're going to have them right along—will be based on something other than asking you, Mr. Dealer, to take a less-than-living profit. Every Enterprise sale is free of time-consuming, profit-consuming headaches. The high quality features built into every Enterprise range cut down on servicing.

Ask your Enterprise-ing salesman about your new advertising allowance

PHILLIPS & BUTTORFF CORPORATION

Nashville, Tennessee



Enterprise

... in its 99th year

AMERIVENT SAVES MONEY

6 WAYS!



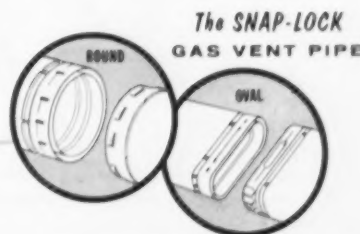
Yes, you save money 6 ways with **AMERIVENT** double-wall
GAS VENT PIPE

- 1** It's light! Amerivent weighs 8 times less. Costs less to handle, ship and install, needs less strapping and supports.
- 2** SNAP-LOCK joint. Installs in a jiffy, cuts installation time to the bone. No cements or tools needed.
- 3** Stops condensation. No stained plaster or wall-paper, no peeled paint, no rusted heaters with Amerivent.
- 4** Saves space. Installs safely 1" from combustibles. ($\frac{3}{8}$ " for Type B-W wall heater installations) No furring-out around vent, no ventilating grills needed.
- 5** Adjustable elbows and telescoping lengths simplify tough installation problems, eliminate cutting, fitting and mating.
- 6** No rejects, no "hot walls", no red-tagged jobs. Amerivent meets U-L, FHA, VA, AGA, etc. and all codes.

**Don't take chances with your profits. Next time specify Amerivent.
You'll find your venting problems go up the chimney — with Amerivent!**

AMERIVENT *Division*

AMERICAN METAL PRODUCTS COMPANY, INC.
6100 BANDINI BOULEVARD • LOS ANGELES 22, CALIF.
P. O. BOX NO. 22050 RAYmond 3-9211



White River

THE *World's* FINEST PROPANE TRUCK TANKS

- ★ Designed for Time-Saving Operation and Longer Service
- ★ Money-Saving Features "Field-Tested" Over Our Own Retail Gas Routes
- ★ Choose From 5 Models—1200 to 2200 WG Capacities
- ★ Priced To Give You Unmatched Economy and Value
- ★ Convenient Financing Available On Both Tanks and New Trucks

Write TODAY for Illustrated Literature, Prices & Specifications on the Complete White River Line



WHITE RIVER
DISTRIBUTORS, Inc.

Phone 570 Batesville, Arkansas

WHY LOSE 4% OF B-P FUEL?



KRUG B-P PUMPS

eliminate this loss—assures safe transfer of liquid petroleum fuel — Venting tanks while filling costs money and is very dangerous. A KRUG Pump is the proven and practical method of transferring B-P Gas for tractor, bottle and tank filling. **PROFIT TWO WAYS** —your customers need KRUG Pumps for their protection. You can use KRUG Pumps in your own operation. The World's Largest Producers of B-P Hand Pumps.

KRUG PUMPS—Often Copied—Never Duplicated—Ask Your Distributor or Write:

D. H. KRUG COMPANY Dept. BP-87 MADISON, SOUTH DAKOTA

series 1400 and series 1500 regulators. Identified as bulletin 100, the catalog gives complete details on 36 different regulator models made by American Meter in this classification. Included is information on construction, capacities, dimensions, standard modifications, and replacement parts.

Circle 35 on Readers' Service Card

Field flow charts

Certified field flow charts are now available from Trinity Steel Co. These charts show in easy graphic form the rate of fill of Trinity's new "tricon splash fill" systems, with and without vapor return hose. They also show the rate of fill of Trinity's standard system.

Circle 36 on Readers' Service Card

Commercial heater bulletin

Complete description and specifications on Reznor-Olson stainless steel direct-fired heaters are included in a bulletin published by the Reznor Manufacturing Co. These units are designed for large commercial and industrial space heating applications. The line includes models in 10 sizes from 400,000 to 2 million Btu.

Circle 37 on Readers' Service Card

L. P. gas operation booklet

A 20-page booklet, which contains several pages of factual data regarding the advantages, characteristics, and operation of L. P. gas, has been published by American Liquid Gas Corp. In addition, it explains the functions of various types of L. P. gas carburetion equipment and illustrates the products manufactured by Algas.

Circle 38 on Readers' Service Card

Burner brochure

There is a new Selas Corp. of America bulletin entitled "Selas Series PRS Spear Flame Gas Burners." This 4-page brochure describes a type of burner which produces a sharp, spear-like heating flame, widely used in fields where a high temperature flame covering a limited area is required.

Circle 39 on Readers' Service Card

Reach a new **HIGH** in unit heater sales!

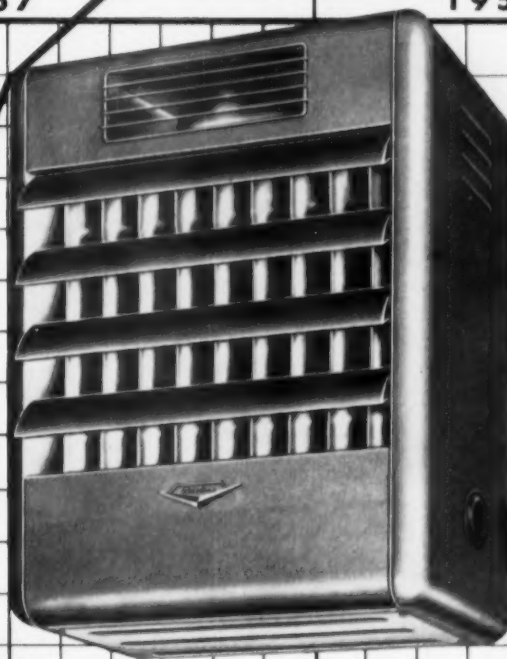
956

1957

1958

WITH
Peerless
GAS FIRED
**UNIT
HEATERS**

**The HEATERS
MOST FREQUENTLY
ASKED FOR BY NAME**



The best in Automatic low cost heating for stores — restaurants — factories — shops . . . in fact any commercial or industrial heating need.

Peerless Unit Heaters have genuine customer appeal in their beautiful neutral gray-green color . . . modernistic cabinet styling . . . compactness . . . economy and quiet operation.

Combustion chamber is made of ALUMINIZED steel that resists corrosion and greatly increases the life of the unit. A choice of fan or blower in all sizes from 50,000 B.T.U. to 200,000 B.T.U.

Peerless gives your customers materially more for their money as well as greater heating satisfaction and best of all, more profit and less headaches for you.

See your Distributor or write us for literature on these rugged and dependable Peerless Heaters that all smart dealers handle with pride.

GAS | *The modern fuel*
Peerless | THE MODERN HEATER

**PEERLESS MANUFACTURING DIVISION OF DOVER CORPORATION
LOUISVILLE 1, KENTUCKY**

**MAKE READY
NOW**

... to handle peak

WINTER LOADS

WITH VIKING PUMPS

Fueling and Bottle Filling Pumps

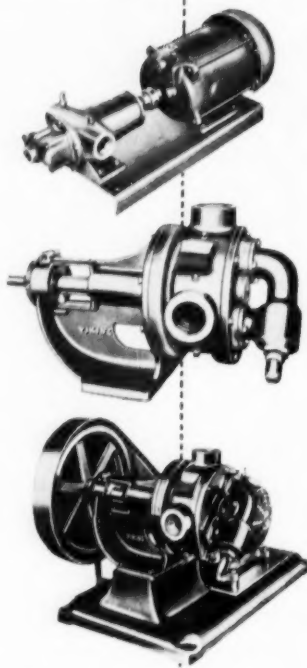
Be ready with fast and positive Viking pumps. Available in 10, 20 and 30 GPM sizes direct connected to motor or engine. All equipped with mechanical seal, O-ring gaskets and no lubrication required.

Truck Delivery Pumps

Viking LP-gas power take-off pumps in 28, 38 and 70 GPM sizes load and unload truck tanks in record time. Results are outstanding when installed with return-to-tank valves and full size piping.

Bulk Plant Pumps

Vikings are available in all sizes up to 90 GPM. Mounting arrangements for any type of drive. For complete information on all Viking LP-gas pumps, send for catalog Hb today.



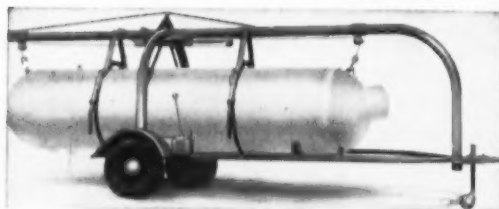
For your
safety—
all pumps
carry this
Underwriters
mark.



VIKING PUMP COMPANY

Cedar Falls, Iowa, U. S. A. In Canada, it's "ROTO-KING" pumps

See Our File in Butane-Propene Catalog



PAT. PEND.

**It's FOR YOU
FISK
TANK TRAILER
HYDRAULIC**

YES—ONE MAN—CAN FRISK your tanks with a FISK trailer. Simple to operate and maintain. The hydraulic system does all the work. Save muscles—time and money. Fisk will transport tanks up to 1260 w.g.

PRICED WITHIN YOUR REACH—WRITE TODAY

FISK TRAILER SALES

Mounted route #26, Fond du Lac, Wisc.

Fine Products Co.
6240 Ogden Avenue
Berwyn (Chicago), Ill.

CALENDAR

**Coming events
in the Industry**

1957

July 31—Maryland LPGA Summer Meeting—Rosehaven, Md.

July 31-August 2—Fifth District Annual L. P. Gas Service School—University of Kansas, Lawrence, Kan.

August 5—Pennsylvania LPGA Summer Meeting—Jennerstown, Pa.

August 14—New York State LPGA Summer Meeting—Beck's Grove, Rome, N. Y.

August 25-27—New Mexico LPGA Annual Convention and Trade Show—Hilton Hotel, Albuquerque, N. M.

September 10—Pennsylvania LPGA Annual Convention—Penn-Harris Hotel Harrisburg, Pa.

September 12-14—Wisconsin LPGA Convention—Deer Park Lodge, Manitowish, Wisc.

September 13-14—Idaho LPGA Fall Meeting—Shore Lodge, McCall, Idaho.

September 15—North Carolina LPGA Annual Convention, Sir Walter Raleigh Hotel, Raleigh, N. C.

September 15-16—Kansas LPGA 12th Annual Convention and Business Meeting—Broadview Hotel, Wichita, Kan.

September 23—Virginia LPGA Annual Convention—Hotel Chamberlain, Old Point Comfort, Va.

September 26-27—Illinois LPGA Convention—St. Nicholas Hotel, Springfield, Ill.

September 27—Natural Gasoline Association of America, Oklahoma Regional Meeting—Skirvin Hotel, Oklahoma City, Okla.

October 6-8—Oklahoma LPGA Annual Meeting and Convention—Skirvin Hotel, Oklahoma City, Oklahoma.

October 7-9—American Gas Association Annual Convention—Kiel Auditorium, St. Louis, Mo.

October 14-16—New York State LPGA Management Conference—Cornell University, Ithaca, N. Y.

October 25—Natural Gasoline Association of America, Southern Regional Meeting—Washington-Youree Hotel and Captain Shreve Hotel, Shreveport, La.

November 1-2—Eleventh National Home Laundry Conference—Mayflower Hotel, Washington, D. C.

November 22—Natural Gasoline Association of America, Panhandle Plains Regional Meeting—Herring Hotel, Amarillo, Texas.

All associations are invited to send in dates of their forthcoming meetings for this calendar.

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Convenience .. Ease
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Moving .. Savings ..
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You can count on us for all
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We've got the experience,
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ship.



DAL-WORTH SPACE MIZER

Three sizes — 1,000 WG, 2,000 WG and 3,000 WG.
Completely self-contained with choice of pumping and meter-
ing equipment in locking compartment below tank.
Available with "Texoil" dispenser for service station
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Painted two-tone to match major oil company colors if
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No sharp corners or obstructions to hamper operations.
1,000-WG unit uses less than a 7-foot square...no fence
required.
Spray-filling for easy refueling of tank.

This is the ideal unit for the service station operator who wants to
take advantage of those additional sales and profits on LP gas...
for the economy-minded fleet operator...or for added storage space
for the LP gas dealer. It's easy to install and the entire unit can be
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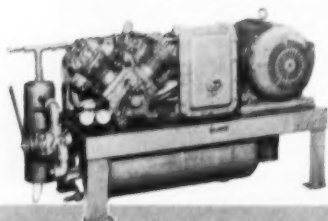


L P GAS

TRANSFER UNIT

SAVINGS RECORD

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**look at these
\$\$\$ saving facts**

**GALLONS OF LIQUID REPRESENTED BY
VAPOR CONTENTS OF 10,000-GALLON TANK CAR**

COMMERCIAL PROPANE		
Tank Car Temp. — F.	Corresponding Pressure-psi	Gallons Recoverable
110	212	540
100	185	485
80	140	392
60	102	307
40	72	237
20	47	175

BUTANE		
Tank Car Temp. — F.	Corresponding Pressure-psi	Gallons Recoverable
120	62	204
100	43	157
80	27.5	115
60	15.2	85
40	5.6	61
30	2.1	51

HERE'S HOW: The Brunner L P Gas Transfer Unit not only transfers all liquid to your storage tank but also removes and liquifies the gas vapors in the tank car. That amounts to one extra tank car of gas from every 20 tanks.

It's also the economical and efficient way to load tank trailers and even discharge into storage tank of ultimate consumer.



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Tells You How To Get Transfer Savings

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10 Lbs-85,000 Btu

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35 & 86,000 Btus

Safe, sure & quiet heat. Burns with clear blue flame. Low pressure type (6 to 8 oz pressure) can have automatic shut-off control. Approved in large cities. Designed to be delivered knocked down for small space storage. Assembled in a few minutes. Ask for free Leaflet No. HE-S-4. It's AEROIL for Winter Heaters Since 1917.

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BPN

associations

**Dryden is president
of Louisiana group**

The Butane-Propane Institute of Louisiana concluded its annual convention at the Roosevelt Hotel, New Orleans, June 2-4, by electing Martin F. Dryden, Jr., Baton Rouge, as its president for the coming year.

Other officers named were Howard J. Cornay of Lafayette, vice president; J. C. Chenevert, Alexandria, secretary; and Walter C. Bogan, Denham Springs, treasurer. Board members to serve with the above are: H. M. Fuller, Dubach; Pearce Bailey, Lake Providence; Robert W. Anderson, Delhi; Drozan Miller, Lake Charles, and Quentin Jones, Houma.

The meeting attracted some 150 L. P. gas dealers and suppliers from the area. The business sessions were well attended and the speakers' subjects were timely and instructive.

Among those that addressed the meetings were: Howard D. White, executive vice president, LPGA, Chicago; Charles W. Guy, vice president and treasurer, Texas



New officers of the Butane-Propane Institute of Louisiana are (seated left to right) Martin F. Dryden, Jr., president, Baton Rouge; Walter C. Bogan, Denham Springs, treasurer; (standing left to right) J. C. Chenevert, Alexandria, secretary; and Howard J. Cornay, vice president, Lafayette.

Personalities . . . are part of the trinity story!



NO. 4 IN A SERIES • W. N. (Bill) Peacock, Jr., is the man most instrumental in the development of Trinity's world-famous T-1 steel blimp transport units. Bill holds the important position of Director of Research and Engineering and he and his staff are continually seeking ways to improve all Trinity's products. He is well qualified for this position . . . a graduate of Southern Methodist University's Engineering School, he did design and engineering work on steel fabrications many years before joining Trinity six years ago. Bill's friendly manner and willingness to serve have made him an important "Personality" in the Trinity Story.



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Latin American Division: Tanques de Acero Trinity S. A., Calle Poniente 150, #734, Mexico 16, D. F. Plant and Sales Office.

Natural Gasoline Corp., Tulsa; Harry S. Pond, Jr., president, Pond-Johnson Co., Baton Rouge; Robert D. Jones, assistant manager sales training, Continental Oil Co., Houston; and K. E. Jones, director of the Liquefied Petroleum Gas Commission of Baton Rouge.

All sessions were presided over by Victor E. LaGrange, president, Institute of Lake Charles. At the closing luncheon, he was presented with a plaque in recognition of his leadership in the past year.

The dealers approved three bills to be presented to the next legislature for much needed legislation benefiting the industry. Also, in the plans of the new officers, will be a concerted drive to bring all of the Louisiana dealers into the association. L. P. gas sales in the state were well over the national average, according to state officials, and this year's volume will surpass that by a good margin.

Idaho LPGA hears Albert Smith speak

Members of the Idaho LPGA met in convention at Boise, May 25. During the day-long meeting, the delegates heard a report from



Albert Smith, vice president, Inter-mountain Gas Co., on the progress of natural gas activities by his company within the state.

W. W. Burgess, Beam Products Manufacturing Co., addressed the group on the subject of L. P. gas carburetion. Open forum discussions were also held on the subjects of flaming, irrigation, pumping, and other related subjects.

The convention was rounded out with a group luncheon, reception, and dinner. During the dinner, Mrs. Betty Bever, "Mrs. Idaho of 1957," gave a report on the national contest and the selection of "Mrs.

Nearly every phase of the LPG industry was represented by members of the STI Gas Fuel Alumni Association. Because of the tight schedule imposed on many of the members due to the meeting being held during the National LPGA convention it was impossible for all of the members to be present at the same time. This is part of the group that made attendance the largest to date.

America," during the finals held at Fort Lauderdale, Fla.

President Vinton Stanfield announced that Idaho's fall meeting will be held at Shore Lodge, McCall, September 13-14.



Just what customers want—
SUPERIOR HEATING
and STYLING
of
Martin
Gas
Heaters

**"Yes, that's
"Continental
Console
Styling"**

Send for new catalog
showing complete line of
rented and safety cabinets—
all A.G.A. approved.



V800

MARTIN STAMPING & STOVE CO.,
Huntsville, Ala.

Attendance at STI meet is the largest ever

The annual meeting of the Gas Fuel Alumni Association of Southern Technical Institute was held at the Conrad Hilton Hotel in Chicago, May 14.

A business meeting followed by a luncheon was attended by alumni and undergraduates. Attendance at the meeting was the largest to date.

Election of officers for the coming year were as follows: Robert J. Sipchen, president; Jess Ward, Selwyn-Pacific, vice president; and Earle Clifford, head of the gas fuel department at Southern Technical Institute, secretary-treasurer.

Eighty exhibit products at Appliance Institute

The 25th Anniversary Convention and Exhibit of the Institute of Appliance Manufacturers opened June 3 at the Netherland Hilton, Cincinnati. Eighty exhibitors of components, materials, and services used in the making of appliances exhibited their products—the largest such trade show ever held.

During the three-day session, the



"...So That's Why **PERFECTION**[®] Is Safer And Easier To Service!"



Right! You can fill a BS&B **PERFECTION** Propane System up to 52% faster with this new flanged **MULTIVALVE**[®]. And only **PERFECTION** combines convenient **MULTIVALVE** operation with leak-proof safety of the new patented Float Ring Seal!

This Float Ring Seal is as reliable as it is simple. It is a wedge-shaped nylon ring specially designed for insertion between the flanged fitting and the island bar of the tank. Pressure within the tank compresses the seal... higher pressure, tighter seal. Simple, isn't it?

The new BS&B **PERFECTION** Propane Systems retain the field-proven features that have built the enviable reputation of unsurpassed quality... one-piece weatherproof Golden Dome, recessed internal relief valve for still more safety, heavy lifting lugs located for wide spread balance and handling ease, rugged one-piece steel channel wrap around legs.

There's no better time than now to standardize your operation on the one propane system that assures customer satisfaction with trouble-free service—BS&B **PERFECTION**... with the Golden Dome!

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**HOLD ...
Old Customers
ADD New Ones!**



with **"HomeMaker Hints"**

Yes, you **PROFIT** by the regular, friendly contact that "HomeMaker Hints" makes for you. Colorful but low cost, "HomeMaker Hints" contains tested recipes . . . household helps . . . bits of humor . . . **PLUS** selling messages about your gas and gas appliances! Used by over 200 aggressive Gas Companies!

Complete New Issue Every 30 days!

Imprints with your name, address, phone

Builds Goodwill, Makes SALES!

ASK For SAMPLES and PRICE SCHEDULE!

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Clip out and

Mail Today, to . .

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for **leakproof,
pressure-tight
connections**



principal speakers were T. Spencer Shore, president, Eagle-Picher Co., Cincinnati; Tom C. Campbell, editor-in-chief, *The Iron Age*; Harold B. Wess, professor of business administration and marketing, American University; Stanley E. Fowler, director of sales training, Geo. D. Roper Corp.; A. A. Greenberg, business manager, *National Furniture Review*; Richard E. Paret, stainless steel specialist, American Iron & Steel Institute; H. N. Oldham, new business manager, Pioneer Natural Gas Co.; Ronald Ringenberg, assistant sales manager, Mutschler Brothers Co.; Chet Huntley, NBC-TV commentator.

The Institute's president, Leonard Raulston, vice president, United States Stove Co., South Pittsburg, Tenn., presented awards to suppliers with the most effective exhibits and to suppliers who, during 1957, had the most effective advertising in the Institute's magazine, *Home Appliance Builder*.

Green's Fuel convention held in Nassau, Bahamas

The 25th anniversary convention of Green's Fuel Inc. was held in Nassau, Bahamas, at the Emerald



John T. Oxley, president of Texas Natural Gasoline Corp., Tulsa, Okla., a speaker at Green's Fuel convention is introduced by K. H. Koach, president of Green's Fuel Inc., Sarasota, Fla.

Beach Hotel on June 22, with the registration exceeding 115.

Following the opening address by K. H. Koach, president of Green's Fuel Inc., Sarasota, Fla., E. Carl Sorby, vice president of Geo. D. Roper Corp., discussed the timely subject "Today's Challenge . . . or, Survival of the Fittest."

During the afternoon session R. F. Horan of General Controls Co. presented some interesting facts on the subject of "Dealer Management and Merchandising."

Following Mr. Horan, John T. Oxley, president of Texas Natural Gasoline Corp., Tulsa, Okla., discussed a topic close to the hearts of all the Green's Fuel gas family . . . "Future Outlook for L. P. Gas." Mr. Oxley covered the current situation and gave his interpretation as to changes which are in the making for the future; he contended that if the dealer would remain alert and not get over-extended, thereby keeping his business in proper order, there was little to fear . . . he does not anticipate an over-supply of product. A cold winter, he stated, might prove most difficult for those in the L. P. gas industry who are not prepared.

The Green's Fuel Banquet held at the Emerald Beach Hotel was highlighted by a talk from Stafford L. Sands, co-owner of the Bahamas Gas & Fuel Co., Ltd., Green's Fuel dealer in Nassau.

When one crosses the international date line in the Pacific Ocean, a day can be lost. There is a line on the highway where it is possible to do even better.

The motor car has not made walking a lost art. How else can we get from where we must park to where we want to go?

BUTANE-PROPANE News



Butane, Propane

POWER

CARBURETION • INSTALLATION
• SERVICING

Quick payoff from huge savings

Gasoline gets the gate at Gates

By J. ARTHUR THOMPSON

After two years of study, research, and testing, Gates Rubber Co., one of the world's leading manufacturers of industrial rubber products, decided to convert 100 intra-plant and over-the-road vehicles to LPG. Conservative figures now show that the conversion will pay for itself in less than two years and then Gates will have a clear \$24,000 per year profit.

"THE entire cost of the installation and conversion should be paid off in less than two years. The apparent savings in lubricating oil, spark plugs, and fuel alone add up to a substantial amount for each unit and would make conversion worthwhile even without taking into consideration all of the other advantages and savings we get from L. P. gas operation."

Such are the words of the people



Floor sweepers such as this were included in the conversion of 100 vehicles to LPG power at the Gates Rubber Co., Denver.



Industrial trucks, the "workhorses" of every factory, get reliable power at low fuel, oil, service, and maintenance costs at Gates.

**For more profits...
take advantage
now of the
BIG SWITCH
to LP-GAS!**



More and more lift truck users are switching to LP-Gas. Manufacturers, too, are producing more LP-Gas models. You can make the most of these opportunities for year-round LP-Gas profits, by having plenty of PREST-O-LITE Lift Truck Cylinders on hand.



PREST-O-LITE Lift Truck Cylinders are rugged—built to take rough handling in day-to-day lift truck operation.

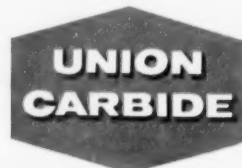
PREST-O-LITE Lift Truck Cylinders are lightweight—easy to change and carry. All sizes have curled handholds for easier lifting—both the 33½ and 43½ lb. sizes have curled footings, for extra strength.

PREST-O-LITE Lift Truck Cylinders are electrostatically painted—first with zinc oxide, then with aluminum enamel, and infra-red dried—for maximum protection against moisture and corrosion.

PREST-O-LITE Lift Truck Cylinders cost you no more than other cylinders that offer so much less. They're made by LINDE, with 50 years of cylinder-building experience.

Take advantage of the big switch to LP-Gas! For details and prices of PREST-O-LITE Lift Truck Cylinders, call your nearest LINDE office. LINDE COMPANY, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y. Offices in other principal cities. In Canada: Linde Company, Division of Union Carbide Canada Limited.

Linde
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The terms "Linde," "Prest-O-Lite," and "Union Carbide" are registered trade-marks of Union Carbide Corporation.

most concerned with motive power maintenance at the mammoth Gates Rubber Co., Denver.

Gates Rubber is among the first six of the nation's rubber manufacturing companies. It is the largest manufacturer of V-belts in the world. Its products are sold in every part of the United States and in 109 foreign countries as well. Gates tires, hose, V-belts, and other products are known in all segments of American industry. In addition Gates manufactures a wide variety of mechanical rubber goods: luggage handles, pipe wipers, chicken picker fingers, rubber linings for tank cars and industrial tanks, rubber gate seals for the huge power dams, and many other items.

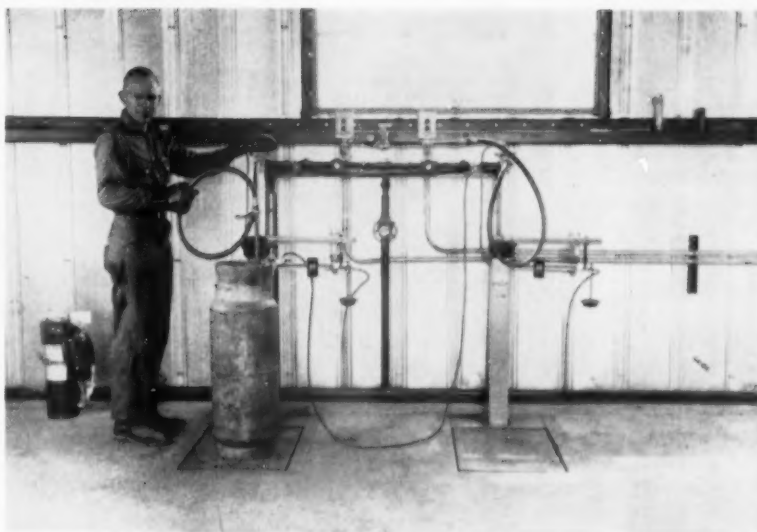
Gates began in 1911 and did not achieve its present eminence in the industrial world by second rate methods. Poor equipment, shoddy materials, or inefficiency have never been tolerated.

After the proposition of switching intra-plant motive power from gasoline to L. P. gas was first made, nearly two years were spent in investigation, research and rigorous testing.

The results and obvious savings were so startling that the signal to go ahead was given by top management. \$53,000 was the appropriation for the switchover.

By the time the program is completed, about 100 pieces of intra-plant motive power and over-the-road trucks will have been converted to L. P. gas.

The over-the-road trucks are service units used in and around the city of Denver. The intra-plant equipment includes fork lift trucks, tow units, small utility trucks, and power sweepers. A

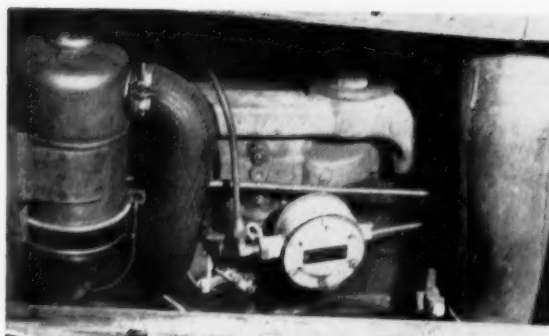


Top, Jack Steel demonstrates Gates Rubber's safety-plus cylinder-filling plant.

Center, the valve is turned on and the fork lift is ready to roll on LPG. Harry Smitherman, head of Gates Rubber's truck maintenance department, does the turning.

Bottom, another load of Gates Rubber Co. products is taken to the warehouse with clean, smooth-operating propane power.

A typical carburetor installation on one of Gates' fork lift trucks is shown. Conversion will soon pay for itself.



unit called a prime mover, originally a war surplus item, is used for switching freight cars around the big plant. This too has been converted to propane with a big savings in operating costs and a decided improvement in performance.

The fork lift trucks are 2000 and 6000 lb capacity models. The smallest units converted are the utility trucks which are powered by a single cylinder, 5.8 hp Wisconsin engine.

According to the estimates of Industrial Engineer Vern Bybee and Harry Smitherman of the truck maintenance department, when the 100 conversions are completed, some time this year, the accountable annual savings for Gates will add up to something like \$24,000.

This includes fuel cost savings estimated at \$11,000 and maintenance costs of \$13,000. The maintenance estimate includes savings in service time and oil costs. And they believe these figures to be quite conservative.

But even this figure does not tell the whole story.

Previously, oil was changed about every two hundred hours. Now oil is changed only after two thousand hours or more in many cases.

Mr. Smitherman's personal pick-up truck was among the units converted. It has gone over 4500 miles without an oil change.

When a piece of motive equipment must be taken out of service for overhaul, the time lost is an often intangible, but very real cost added to operations. Motive power units in the Gates plant had been averaging one motor overhaul per year. This time can now be ex-

tended to a three to five year average. A very actual, if unmeasurable savings.

One unit, powered with a Chrysler Industrial engine, had been running about nine months on gasoline and was switched over to propane carburetion without any other work being done. After 12 months' operation on propane it was torn down for examination and overhaul if needed. During this total of 21 months, this unit had been working three shifts per day, six days a week (around 13,400 hours). Despite this long, grueling siege, the wear was less than half of one thousandth of an inch on any part. Everything was put back together using standard parts; no oversize was required anywhere.

In addition to the savings, the Gates people are enthusiastic about the efficiency and safety of L. P. gas.

There is no overflow or drip from the fuel tank and no fumes. They have quicker starting and more power. It is far cleaner, more satisfactory and efficient all around.

Zenith carburetors are used on

intra-plant equipment and Century on the outside trucks.

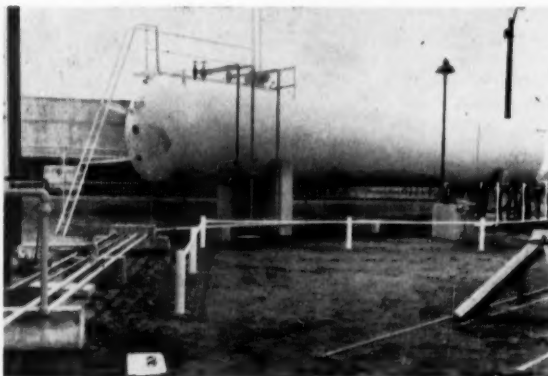
Perhaps one of the most interesting features to an L. P. gas man is Gates Rubber's fuel storage and bottle filling station.

A 20,000 gal. storage tank is situated in a fenced area at a good distance from all other buildings. A rail spur leads to the site. The house for the compressor and bottle filling plant, built of sheet steel and concrete, is nearby. All piping is color-coded. A Corkin compressor is used for unloading tank cars and two Roney pumps are used in bottle filling.

All electrical equipment in the storage plant is, of course, explosion proof and extra heavy duty. Safety-plus is emphasized everywhere. Large ventilating ducts beginning at 12 to 18 in. from the floor lead to a big exhaust fan in the roof. The switch which starts the motors for bottle filling is a delayed action mechanism which first starts the ventilating fan motor to exhaust any possible low lying fumes, before the pump motor starts. When bottles are placed on the scale, they are immediately grounded against any static sparks. The entire fuel storage and filling installation was designed and installed by Roney Inc.

Jack Steel, who is in charge of this installation, has had eight years' experience in L. P. gas and he is a firm believer in safety-plus. He keeps the yard and the bottle filling house in immaculate condition at all times.

The savings and benefits which Gates Rubber Co. has found with the conversion to propane power has exceeded their expectations. ■



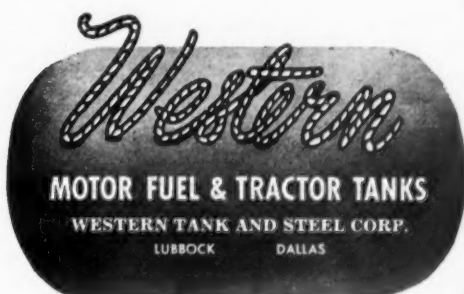
A 20,000 gal. storage tank supplies LPG to the 100 propane-powered vehicles at Gates Rubber Co.

"My LPG dealer found just the tank I needed IN STOCK at a Western Distributor"

There's a Western Distributor selected, for Dependability and Know-How, near you! Western Distributors are located in the following cities.

Chicago	Kearney, Nebraska
Chickasha, Okla.	Liberal, Kansas
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Edinburg, Texas	Phoenix
Kansas City	Sikeston, Mo.
	St. Louis

For the name and address of your Western Distributor, write Box 1338 or call PO 5-9474, Lubbock.



The Nation's No. 1 Supplier of LPG tanks to Tractor Manufacturers . . . and the largest exclusive manufacturer of Automotive and Tractor Tanks.

When your customers need a tank in a hurry, you'll find Western has backed the finest quality products with more convenient and dependable service. LPG dealers throughout the nation are saving hours, sometimes days, by checking FIRST with their nearest Western Distributor. In most cases, you'll find all of Western's custom-designed automotive tanks, and perfect-fit tractor tanks, IN STOCK at your Western Distributor.



The case for the L. P. gas engine

By F. E. SELIM • Phillips Petroleum Co.

Five truck tractor engines went on "trial" recently at the convention of the National Tank Truck Carriers Inc. in Detroit. Bart Rawson, editor of *Commercial Car Journal*, one of BPN's sister publications, was moderator of a convention panel which included "The Case for Fuel Injection Engines," "The Case for Turbines," "The Case for Conventional Engines," "The Case for Diesel Engines," and "The Case for L. P. Gas Engines." Here is the evidence produced in favor of L. P. gas.

THE best engine for any particular job is the one that can accomplish the job required of it at the lowest over-all cost. Since all the power plants under consideration here today can be assumed to be capable of performing the job satisfactorily, the choice of the best power plant is largely an economic one.

By far the largest item in operating cost of any truck engine is the fuel cost. Since the price of fuel varies considerably in different parts of the country it is difficult to make any flat statements on the relative prices of gasoline, diesel fuel, and L. P. gas. However, there are some very significant trends in fuel prices which are illustrated in Fig. 1. Although the actual price of fuels in any particular area will vary from those shown on this chart, the trend in fuel prices is pretty much the same in all areas.

Let's take a brief look at some of the reasons for the trends in fuel prices which this chart shows. One obvious part is the general trend of increases in all prices. Coupled with this, in the case of gasoline is the fact that the demand is far greater than the supply available from simple distillation of crude oil. The result is

that today's refineries are complex chemical plants that must take the crude oil apart and then put it back together in a form that will meet the requirements both as to quality and quantity. All of this processing costs money and in most cases results in a reduction of yield. When 70 octane natural gasoline (which was plenty good enough for the 1920 car) is put through a catalytic reformer to make 100 octane gasoline out of it for the car of the future, the volume of gasoline is reduced by about 20 per cent.

Refiners, like any manufacturer, try to balance their production to meet the demands of their customers. Within certain limits refiners have some flexibility in the amount of the various products made from a barrel of crude oil. In all cases the cost of the process must be considered.

For many years gasoline pro-

duction was the controlling factor in refinery operations. As a result, the amount of crude to be run in refineries was set by the amount of gasoline required. During the past few years the demand for diesel fuels and fuel oils has increased so rapidly that many refiners are now faced with a situation wherein demand exceeds the supply. As a result, the production of distillate fuels has been increasing with respect to gasoline production. The cost of the processes used to increase this distillate production must also be considered.

One factor in the problem which is not apparent from any of the figures is that catalytic cracking has come into widespread use for converting distillate oils into high octane gasoline. Unfortunately, the straight run gas oils which make the best diesel fuels are also the best feed stocks for catalytic

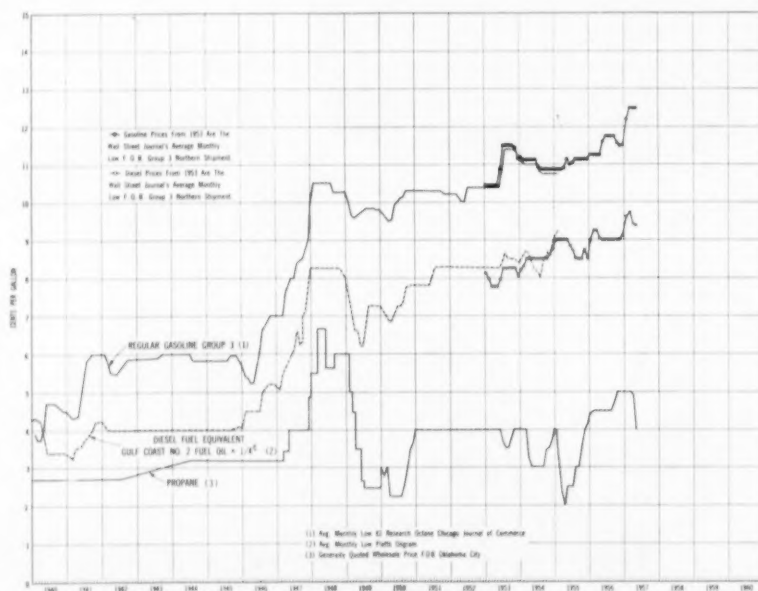


Fig. 1. Trends in motor fuel prices

TABLE I. TRUCK-TRACTORS OF EQUAL PERFORMANCE RATED ON THE BASIS OF DESIRABILITY

Most desirable (1) to least desirable (4)

Item	LP Gas	TYPE OF ENGINE		Diesel
		Conventional Gasoline	Fuel Injection Gasoline	
Original cost	3	1	2	4
Miles before overhaul	1	4	4	2
Cost per overhaul	1	1	2	4
Lube oil cost	1	2	2	4
Smoke & odor	1	3	2	4
Fire hazard	1	4	4	2
Weight/hp.	1	2	2	4

cracking plants. This means that refiners will either sell these gas oils as diesel fuel or convert them to gasoline depending upon which brings them the greatest net return. As long as the demand for high octane gasoline remains great, the availability of top quality diesel fuels will depend upon the willingness of diesel engine operators to pay enough for their fuel to make the conversion of these products to high octane gasoline unattractive economically to the refiners.

The natural gas, natural gasoline, and refining industries have found it generally profitable to extract natural gasoline and some of the liquefied petroleum gases from the gas which is produced with oil, from "dry" natural gas and from refinery gases. Deeper extraction to recover more of the propane and butane in these gases will afford a huge increase in the availability of propane and butane when the increased demand for these versatile high octane products becomes a reality. One may confidently expect the natural gas, natural gasoline, and refining industries to provide an increased volume of L. P. gas in response to a continuing demand and at a price level which affords a reasonable incentive. The automotive industry can rely on the favorable response of the petroleum industry to the problem of manufacturing and distributing L. P. gas to automotive vehicles. In other words, the raw materials for production of vastly increased quantities of L. P. gas are available and the production will materialize in harmony with the demand.

Because of the differences in heating values of the fuels and the differences in efficiencies of

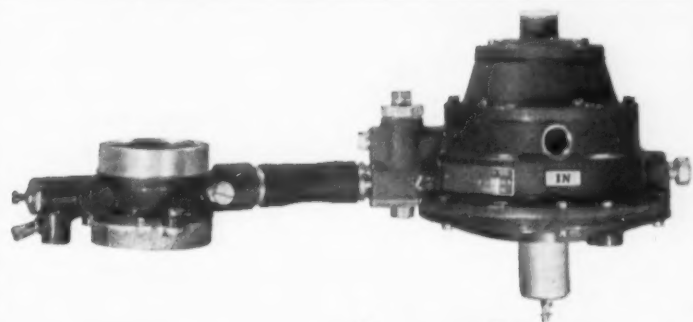
the engines in which they are used, there is a significant difference in the amount of fuel which the engines will use to do the same job. Experience tells us that because of this difference in fuel consumption, L. P. gas is worth about 2/3 as much as diesel fuel and about 85 per cent as much as gasoline in heavy duty service. In other words, wherever the total cost of 100 gal. of L. P. gas (including all taxes and fees) is equal to or less than the cost of 85 gal. of gasoline or 66 2/3 gal. of diesel fuel, the L. P. gas engine

will be the logical power plant to use.

Total operating costs include a host of items other than fuel costs. Again, experience tells us that if we compare a truck tractor powered by an L. P. gas engine with truck tractors of the same rating using a conventional gasoline engine, a fuel injection gasoline engine and a diesel engine, they will line up about as shown in Table I where we have rated the tractors by engine type on each of the items as most desirable (1) to least desirable (4).

We believe that most of the ratings are well substantiated by the records. Our rating on fire hazard is substantiated by the following quotation from a report of the Interstate Commerce Commission, Bureau of Motor Carriers, Section of Safety dealing with Motor Carrier Fire Accidents for 1951: (Section 24—Conclusions and Recommendations.)

"(F) There are many possibilities for the avoidance of fire and the reduction of property damage caused by fires through redesign



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of vehicles. Although no data is available concerning the proportion of mileage operated by gasoline, diesel fuel, and liquefied petroleum gas powered vehicles, it would appear from examination of accident records that diesel-powered equipment is less likely to catch fire due to tank rupture than is gasoline-powered equipment and that liquefied petroleum gas equipment is practically never involved in a fire accident because of failure or rupture of the fuel system. This increased safety may be attributed to the lower flash point of diesel fuels and the necessarily sturdy construction of butane and propane fuel tanks. Carriers of dangerous and valuable cargoes should, therefore, give careful consideration to the type fuel which powers their units."

This rating is further substantiated by a true illustration. An L. P. gas-powered truck rammed one which had stopped for a stop sign. The driver was not seriously injured but he was pinned in the cab for some time and would undoubtedly have burned to death if

there had been a fire. The fuel tanks were torn completely off the truck and the fuel lines ripped apart but the strength of the tank kept it intact and the safety devices built into all L. P. gas tanks prevented any serious loss of fuel.

In the final analysis, the power plant for any particular truck (assuming that all the types under discussion here today are available in the ratings required) will be determined primarily on the basis of the cost of fuel to operate it with all the other factors assuming secondary importance. In many parts of the country the L. P. gas engine can operate today at the lowest fuel cost of all. If the trends in fuel prices continue as they have in the past, and all our studies say that they will, the areas in which L. P. gas has the advantage will increase in size and the differential in favor of L. P. gas will continue to increase. This coupled with the many advantages of the L. P. gas engine clearly points to a rapid increase in the use of L. P. gas to power tomorrow's tank trucks. ■

Climax changes its name; moves to new location

Climax Engine Manufacturing Co., a division of Eversharp, Inc., has been announced as the new name of one of the nation's leading manufacturers of industrial gas engines. The company was formerly known as Climax Engine & Pump Manufacturing Co., a division of Eversharp, Inc.

The district office at Dallas, Texas, has been moved to the Tower Petroleum Bldg., 1907 Elm St. The company also maintains general sales offices at 208 So. LaSalle St., Chicago, and a factory at Clinton, Iowa.

Climax engines operate on gas, gasoline, and butane and are available in 4, 6, 8, and 12 cylinder models—in a range of sizes from 40 to 610 hp.

Article on LPG trucks in important factory book

The growing interest in the use of LPG as fuel for forklifts and industrial trucks is again evidenced by the publication of a feature article entitled "Picking Your Best Truck Fuel" in the June 1957 issue of *Factory Management and Maintenance*. The article was written by H. R. Lucas, Jr., of Hyster Co., manufacturer of forklifts, lumber carriers, and several types of special factory and yard trucks.

The article is an objective discussion of the advantages and disadvantages of gasoline, LPG, and diesel for trucks of this type. The general tone of the article is favorable to LPG, although two of the author's conclusions will be questioned by many experienced operators. These are: (1) that the maintenance cost of the diesel engine is low, and (2) that LPG is slightly more hazardous than gasoline.

On the diesel question, he points to the absence of the ignition system as a reason for reduced maintenance cost, but neglects to mention the high cost of maintaining the fuel injection system.

Concerning the relative hazards of LPG and gasoline, he brings out the possibility of escape of propane through the pressure relief valve, but overlooks the hazard of gasoline dripping on warehouse floors and around lumber piles.

We do not recall ever having heard of a fire or explosion in a



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- LOW MAINTENANCE

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warehouse, factory, or industrial plant resulting from the escape of LPG through a pressure release valve, although it could happen if the truck was exposed to unusual heat. On the other hand, we know of several lumber companies that have had fires caused when something went wrong with the gasoline system on a yard truck. With the increasing use of LPG in these industrial trucks there will probably be enough data in five years to draw unassailable conclusions from insurance records.

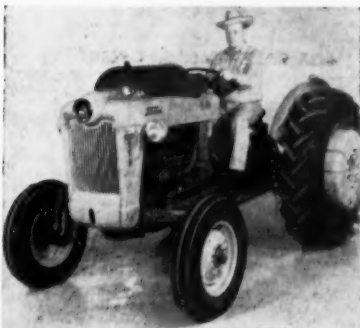
In the meantime it is good to know that a magazine of this importance, with 64,000 circulation, is giving favorable attention to an important use of LPG.

Ford's farm tractors now available with L. P. gas

Ford Motor Co. announced recently that all models of its farm tractors are available with L. P. gas carburetion.

Supplied by Zenith Carburetor division, Bendix Aviation Corp., the L. P. unit was developed by Zenith and Ford engineers. Simplicity of installation and service is an outstanding feature.

Complete field conversion packages are available beginning with 1953 Ford tractor models.



The Ford all-purpose 4-wheel tractors, as well as its row-crop models, are now available with L. P. gas engines as a factory-installed option. Model 850 is shown above.

Council sales aid boosts LPG as tractor fuel

Another new dealer sales aid prepared by the National LP-Gas Council is an attractive folder describing the advantages of L. P. gas as tractor fuel, according to Frank Carpenter, United Petroleum Gas Co., and chairman of the Coun-

THE CLARK

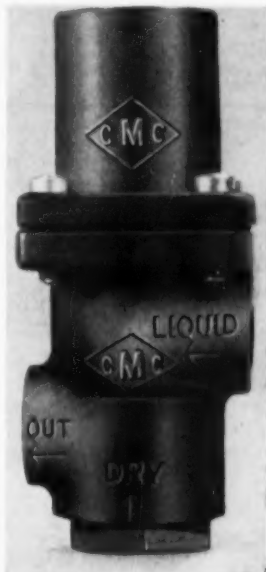


Automatic Pressure Control Valve

Controlled Motor Fuel Tank Pressure means: Constant air-fuel ratio. LP-Gas tank pressure is in direct relation to its temperature. Air-fuel ratio is affected by temperature and pressure changes causing power loss, poor economy and unsatisfactory performance. Controlled tank pressure causes rapid evaporation which refrigerates the tank and does away with filling problems. For peak performance, increased horse-power, added economy and safety ALL FUTURE LP-GAS CONVERSIONS SHOULD BE EQUIPPED WITH THE CLARK PRESSURE CONTROL VALVE.

• For additional information write:

Clark Manufacturing Co.
2269 Orange Avenue, Long Beach 6, Calif.



cil's Dealer Sales Aid Committee.

Titled "How L. P. Gas Boosts Power While It Cuts Tractor Costs," the folder opens into three sections that point out the power, maintenance, and operational advantages of L. P. gas. The 2-color folder is shaped like an L. P. gas bulk tank.

The back cover advises readers to "Get The Facts" about L. P. gas carburetion and provides imprint space for Council member firm names.

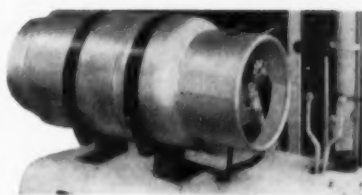
This new consumer folder is an ideal envelope stuffer, and will fit No. 6 envelopes.

The folder will be featured in Council advertising appearing in 25 state farm papers, *Progressive Farmer* and *Farm Journal*.

Members of the National Council can buy the folders from the Council office, 185 N. Wabash Ave., Chicago. Imprinting can be done locally, or by the Council.



CHANGE CYLINDERS IN LESS THAN A MINUTE!



LPG TANK MOUNTING BRACKETS for Materials Handling Equipment

Safe, Sure and Simple! Use with any Materials Handling Equipment that has space for an L.C.C. Tank; either 20, 33 1/3 or 43 1/2 lb. Horizontal or vertical mounting. Positive locking holds tank firmly. Exceeds N.F.P.A. Requirements by 100%. Used by many of the nation's leading industrial firms. See your distributor or write.

USER PRICE \$24

Write for Quantity Prices

LPG FUEL INDICATOR KIT

End expense caused by "Out of Fuel." Red Warning light flashes when LPG is low. USER PRICE \$11.90

BRAKE MANUFACTURERS INC.
1711 Race Cincinnati 10, Ohio



CLASSIFIED Advertising

All Classified Advertising payable with order. Copy must reach publisher's office prior to the 1st of the month preceding publication. Address: Classified Advertising Material, BUTANE-PROPANE News, 198 S. Alvarado Street, Los Angeles 57, Calif.

DISPLAY CLASSIFIED

\$12.00 a column inch per issue. Choice of 18, 14, 12, 10 pt. display type for headings. Set with 1 pt. border. Maximum ad size 3". No cuts permitted. Publisher will set ad for maximum effect in space purchased.

UNDISPLAYED CLASSIFIED 15¢ a word. Set in 6 pt. type without border. \$3.00 minimum charge per insertion. If Blind Box number card of B-P News is used, count as five words.

POSITION WANTED. Undisplayed rate is one half of above rate, payable in advance.

DISCOUNT OF 10% if full payment is made in advance for four consecutive insertions of undisplayed ads.

HELP WANTED

AGENTS WANTED. RESTRICTED TERRITORIES OPEN, bottle and bulk L. P. Gas. Will furnish complete equipment, bottles and truck. Ross Utilities, Inc., Belleville, Ill.

WANTED—EXPERIENCED MAN CAPABLE OF TAKING over full management, office, sales, and service of small propane company in Western Colorado. Will consider sale of partial interest to right man. Incentive plan available. Reply Box 41, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

MANUFACTURER'S REPRESENTATIVES WANTED IN Iowa, Wisconsin, Michigan, Illinois, Indiana, Ohio by old line manufacturer of gas fired conversion burners, forced air space heaters and overhead unit heaters. Give full details in first letter. Write Vacuum Gas Burner Co., Olean, New York.

NEW POSITION SOON TO BE AVAILABLE AS full time field representative for State L. P. Association to travel Nebraska. Include background, qualifications and recent photo with reply. ASSOCIATION OF NEBRASKA L. P. GAS DEALERS, 628 Keeline Building, Omaha, Nebraska.

SITUATIONS WANTED

FAMILY MAN, UNDER 40, COLLEGE TRAINING, 15 years experience in all phases of LPG retail and wholesale distribution, appliances, sales, service, carburetion, now employed as manager large independent distributor in Southwest. Desires to change to larger company that can make full use of above experience and offer broad future advancement plus secure future. Will relocate anywhere this hemisphere. Write Box 48, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

BUSINESS OPPORTUNITIES OFFERED

LPG BULK PLANTS. WE SPECIALIZE in selling petroleum properties throughout Midwest. Have number desirable plants for sale. OLE BRODD, PETROLEUM MARKETERS, 605 Produce Bank Bldg., Minneapolis, Minnesota.

FOR SALE: OLD-ESTABLISHED LPG BUSINESS, Central California. Bulk and bottled service. Furnished house, showroom, office, shop, 3 trucks. About 1,000 customers. Ideal location and climate. Low down payment. Business will pay for itself each year. Reply Box 50, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

PROPANE PROPERTIES. Several independent propane bulk plants for sale in north central Kentucky. Would make ideal combination for one ownership. Total Price—\$350,000. We specialize in petroleum properties. PETROLEUM MARKETERS, 604 Produce Bank Bldg., Minneapolis 3, Minn. 482 Starks Bldg., Louisville, Kentucky.

CONTROLLING STOCK IN WELL ESTABLISHED bottle gas, appliance and bulk gas company in Southeast. 6,000 customers. Sales over \$500,000 annually. Unbroken profit record. Initial cash required \$40,000 but 5 to 10 year payout on balance possible. Reply Box 45, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

BUSINESS OPP. OFFERED (Cont'd)

FOR SALE: MODERN PROPANE PLANT, COLORADO Location. \$70,000.00 down payment. Terms on balance. Reply Box 39, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

FOR SALE: MANUFACTURING RIGHTS TO a (patented) revolutionary new variable orifice, positive fuel metering L.P.G. Carburetor. Inventor, U. S. Adamson, 3470 Madeline Dr., San Jose, Calif.

FOR SALE — TRUCKS - TRAILERS

FOR SALE—TRUCKS, TRAILERS—FOR something different in propane tanks, see Master Tank & Welding (Dallas) advertisement in this edition.

USED PROPANE DELIVERY TRUCKS, 1200 GALLONS W.C. Presently in use and being replaced with larger units. United Petroleum Gas Co., 4820 Excelsior Blvd., Minneapolis 16, Minnesota.

HAUL MUCH MORE GAS! LOAD AND UNLOAD FASTER! Users say, "Nor-Tex Units are the best answers to today's need for profitable delivery units." You can save as much as 1000 lbs. with 202B material, aluminum skirts and cabinets. High-flow piping with INCREASED capacity pump, meter, hose reel and hose now boosts deliveries to 50 GPM. Vapor manifold permits easy simultaneous loading and unloading of twin tanks with either compressor or liquid pump. These popular, carefully engineered and sleek designed Nor-Tex Single and Twin units are produced in four attractive models: The "Standard"—"The Custom"—"The Payroll Special" and the "De Luxe." That's not all! Twin units, up to 2000 WG, are mounted on 84" cab to axle. Start hauling more gas and less steel. Do it profitably and in much less time. Phone, wire or write for prices now. NORTH TEXAS TANK Co., Denton, Texas. Phone Central 5416.

PROPANE DELIVERY UNIT. BRAND NEW—1800 WG twin Model 200 (rear cabinet), mounted on 1957 Chev., 2 ton, 2 speed, 9x22½ 10 ply rear tires, ONLY \$4,608.00 Tax Paid. Plumbing, meter, hose, etc., extra. We trade. White River Distributors, Phone 570, Batesville, Arkansas.

FOR SALE: 1950 GMC TRUCK—1775 WG TANK, Viking Pump, Neptune Meter, Propane Carburetion, Low Mileage, Mechanically extra good, good rubber, new hose. \$3,900.00. Jackson Appliance, Phone 893, Marshall, Missouri.

USED TRANSPORTS FOR SALE: SEVERAL Twin-Barrel, 250# Propane Transports, late model Columbian, single and tandem axle, complete with tractor. Priced right and in excellent condition. Ready to go. Write Dixie Gas, Inc., Marks, Mississippi.

TRANSPORTS: SINGLE OR TWIN barrel; new or used; for lease, or sale on budget or rental sale plan. If you want maximum payload, with all of the latest equipment engineered to fit your truck, roads, and your hauling problem, get the LMC PAYLOADER Contact Lubbock Machine & Supply Co., Inc., Drawer 1589, Lubbock, Texas.

FOR SALE—TRUCKS - TRAILERS - Cont.

FOR SALE: USED PROPANE DELIVERY TRUCKS. Several late model units, ready to go, 1000 to 1600 WG. Long term financing. We trade for your old unit. White River Distributors, Phone 570, Batesville, Arkansas.

FOR SALE: 2 USED PROPANE TRANSPORTS FOR immediate delivery. BUTLER 5830 W.C., 250# W.P. Twin barrel Semi, excellent condition. Priced complete \$3,850.00. FRUEHAUF twin, 6028 W.C. built in 1951. Tandem just overhauled, excellent condition, new paint job. W.P. 250#. Priced for quick sale \$3,950.00. Direct pipe line to refinery puts these out of service. Write or call FUELGAS CO., INC., 3306 Lapeer Rd., Flint, Michigan. Cedar 5-3505.

1950 DODGE TRUCK, PROPANE OPERATED, 1500 W. G. single propane tank, 2 speed axle, 900 tires 10 and 12 ply, Neptune Print Meter, electric hose reel, 150 ft. fill and other hose for complete operation, equipped with air brakes, first class condition. W. F. Messenger, Inc., 44 S. Broad St., Nazareth, Pa.

DELIVERY UNITS: SINGLE OR TWIN Barrel. Our prices are competitive. We invite comparison between the equipment and price on our units with any competitive units. We believe we can give you the highest payloads per pound of gross vehicle weight. Write, wire, or phone, Lubbock Machine & Supply Co., Inc. Drawer 1589, Lubbock, Texas.

FOR SALE—TANKS - CYLINDERS

FOR SALE: 30,000 GALLON ASME TANKS. Used but excellent condition. Reply Box 49, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

1814 GAL. SINGLE BARREL PROPANE tank, 90 gal. Viking Pump, Neptune Print-O-Meter, mounted on 1951 Dodge 2-ton new motor, LP carburetor, 5-speed transmission; 2-speed axle. Now in service, \$1,750.00. Otis Smart, Colorado Springs, Colorado.

1950 G.M.C. TRUCK 1250 W.C. TWIN NOR-TEX Propane Tanks, Ensign combination carburetion, pump hose all ready to deliver propane gas. Price for quick sale \$1,950.00. Call, write or come to Modern Way Butane Gas Co., 3335 Madison Ave., Indianapolis, Ind. State 6-0004.

SKID TANKS

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3000 gallon size built especially rugged for oil field use. Write, wire or phone Lubbock Machine & Supply Co., Inc. P. O. Drawer 1589 Lubbock, Texas

FOR SALE 100# ICC CYLINDERS COMPLETE WITH VALVE AND CAP

\$10.00 each
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THE RURAL NATURAL GAS CO.
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Model 100, trim skirted

1500 WG.....\$1,630.00 Tax Pd.
1800 WG.....\$1,843.00 Tax Pd.

Plus Packaged Plumbing, meter, hose, etc. 3 other Models, 1300 to 2300 WG. Fleet prices on New Truck Chassis.

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115 to 1000 gal.

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DECALS MADE FOR TRUCKS, EQUIPMENT. Small or large quantities. Catalog free. Mathews Co., 827 S. Harvey, Oak Park, Ill.

SPECIALS FROM HOME GAS EQUIPMENT COMPANY—your complete LP gas supplier. COPPER TUBING (50 ft. coils) 3/4 x .032 per coil \$6.35; 1/2 x .032 per coil \$8.35. We pay freight on 20 coils or more. ALUMINUM PAINT, finest cylinder paint available \$2.25 per Gal. We pay freight on 20 gallons or more. TRAILER REGULATOR with POL \$2.59. DOUBLE REGULATOR with tee and pigtails \$4.10. Special low price—while they last, 20 lb. cylinders with Rego valve, any quantity \$9.50 each. We carry a complete line of LP equipment in all the popular makes at lowest prices. We ship order same day received. All prices FOB Cleveland, unless specified. HOME GAS EQUIPMENT CO., Box B, 1301 Carnegie Ave., Cleveland, Ohio.

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FOR SALE: 1 or 150 ROCKWELL L.P. GAS METERS, with gallon reading. Used 1 year in housing project. Price each \$20.00. F.O.B. Sellersburg. A. Diefenbach & Son, D & M Bottle Gas Co., 128 So. New Albany St., Sellersburg, Indiana.

FOR SALE: USED PROPANE AIR EQUIPMENT, 18,000 gallon Tanks, Compressors, Motors, Heat Exchangers, Regulators, Meters, Controls, Valves. For details, write Maquoketa Gas Co., Maquoketa, Iowa.

SERVEL REFRIGERATORS

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Model N500A.....18.00
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HY-acinth 8-6121

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WANTED TO BUY: USED 12,000 GALLON OR above 100 pound Butane storage tank. Please write stating price and description to Propane Gas Service, Inc., P. O. Box 713, LaGrange, Georgia.

WANTED: USED PROPANE DELIVERY TRUCK 1200 to 1400 W. G., in good condition. Single preferred. Coogler Oil Co., Chester, So. Carolina.

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H. Emerson Thomas & Assoc., Inc.
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Have your agent write us about our Complete and Comprehensive Coverage for Adequate Limits of Liability at Reasonable and Normal Rates with Specialized Safety Engineering and Claim Service. Available only in Alabama, Arkansas, Arizona, Georgia, Kansas, Louisiana, Mississippi, New Mexico, Oklahoma and Texas.

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1000 BEAUTIFULLY EMBOSSED BUSINESS CARDS. 5 lines. 1 color \$4.50; Red and Blue \$5.50. Cuts .50 100 extra. Jimmy Ray, Bowling Green, Fla.

BUSINESS RECORDS

BUSINESS RECORD FORMS. ALL-WEATHER EZE-SNAP delivery invoices, for use when making LP gas metered truck deliveries. 1000 sets (3 part) imprinted with name, address and telephone. \$17.50 per 1000 sets. DEGREE DAY SYSTEMS, WOODSIDE 77, L. I., N. Y.

The KNOW-HOW BOOK for LPG

• Dealers • Salesmen • Servicemen

The Bottled Gas Manual has been accepted by many companies as the quickest way to acquaint new sales and service men with typical bottle gas problems. This 352 page (24 chapter) text book brings practical "working" facts to your entire staff in non-technical language. Nearly 10,000 copies in use.

\$4.00 per copy

We pay postage on orders accompanied by check or money order. In California add 4% for sales tax.

Butane-Propane News
198 S. Alvarado St., Los Angeles

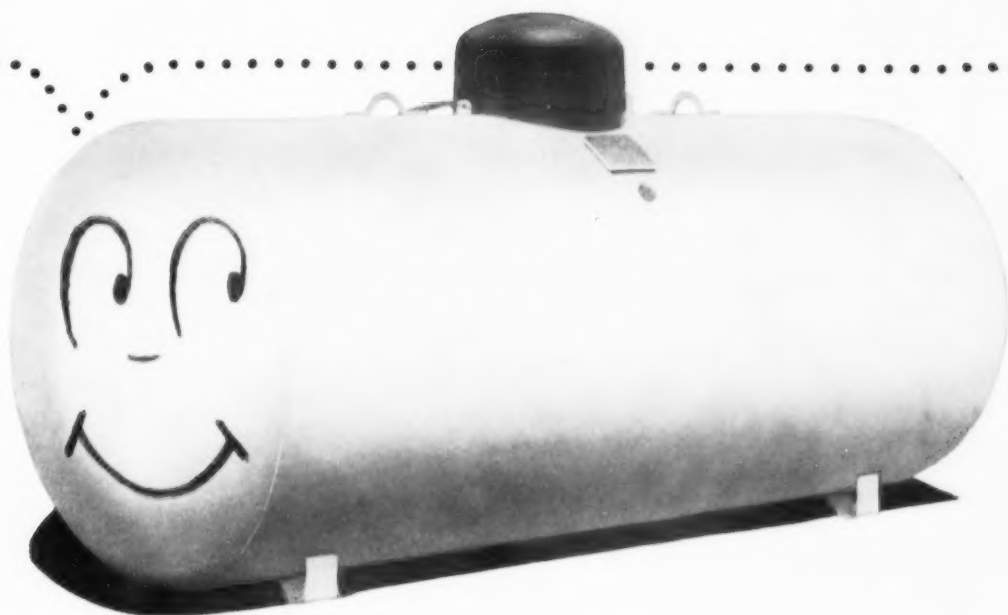
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